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TRANSACTIONS

OF THE

Medical Association

OF THE

STATE OF MISSOURI,

AT ITS

TWENTY-NINTH ANNUAL SESSION,

HELD AT

ST. LOUIS, MO., MAY 3D,

1886.

ST. LOUIS:
EV. E. CARRERAS, STEAM PRINTER, BINDER AND PUBLISHER,
117 and 119 Locust Street.

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11/4/86

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OFFICERS FOR 1886-7.

PRESIDENT:

J. W. JACKSON, Kansas City.

VICE-PRESIDENTS:

WOODSON MOSS, Columbia.
W. E. FISCHEL, St. Louis.
C. L. LAMB, Hannibal.
TINSLEY BROWN, Hamilton.
J. S. GILLETT, Rich Hill.

RECORDING SECRETARIES:

J. C. MULHALL, St. Louis.
E. CAVE, Mexico.

CORRESPONDING SECRETARY:

R. F. BROOKS, Carthage.

TREASURER:

C. A. THOMPSON, Jefferson City.

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STANDING COMMITTEES.

OF ARRANGEMENTS:

J. L. BURKE, J. L. CAMPBELL, T. B. JACKSON, B. J. MILAM.

ON CREDENTIALS:

W. H. BRYANT, O. F. RENICK, C. L. LAMB.

ON SCIENTIFIC COMMUNICATIONS:

E R. LEWIS, G. HURT. J. H. THOMPSON.

ON PROGRESS OF MEDICINE:

A. E. GORE, G. F. DUDLEY, C. H. LESTER.

SUB-COMMITTEE ON PSYCHOLOGICAL MEDICINE:

C. H. HUGHES, A. L. FULTON, W. E. EVANS.

SUB-COMMITTEE ON DISEASES OF THE RESPIRATORY ORGANS AND HEART:

J. C. MULHALL, R. F. BROOKS, G. M. DEWEY.

SUB-COMMITTEE ON NASO-PHARYNGEAL DISEASES:

J. E. LOGAN, C. L. HALL, D. H. SHIELDS.

SUB-COMMITTEE ON INSTRUMENTAL MIDWIFERY:

A. W. MCALESTER, H. H. MIDDELKAMP, N. M. BASKETT.

SUB-COMMITTEE ON ORTHOPEDIC SURGERY:

A. J. STEELE, L. J. MATTHEWS, N. A. DRAKE.

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STANDING COMMITTEES.

ON PROGRESS OF MEDICINE.—CONTINUED.

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SUB-COMMITTEE ON ABDOMINAL SURGERY:

B. G. DYSART, F. J. LUTZ, W. R. SIMPSON.

SUB-COMMITTEE ON DISEASES OF THE GENITO-URINARY ORGANS:

J. W. TRADER, O. A. WILLIAMS, C. W. SUBER.

SUB-COMMITTEE ON OPHTHALMOLOGY:

B. E. FRYER, S. POLLAK, G. A. GOBEN.

SUB-COMMITTEE ON OTOLOGY:

H. N. SPENCER, W. C. TYREE.

ON MEDICAL EDUCATION:

A. C. THOMPSON, J. L. CAMPBELL, J. O. K. GANT.

ON DISEASES OF CHILDREN:

A. B. SLOAN, J. S. GILLETTE, B. F. HART.

SUB-COMMITTEE ON DERMATOLOGY:

J. H. DUNCAN, H. HODGEN.

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W. P. KING, J. H. VAN EMAN, F. SMITH.

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STANDING COMMITTEES.

ON COLLECTIVE INVESTIGATION OF DISEASE:

H. M. LANE, W. F. MITCHELL, C. A. JENNINGS.

SUB-COMMITTEE ON ANATOMY:

J. A. BOND, H. H. GIVENS.

SUB-COMMITTEE ON PHYSIOLOGY:

WOODSON MOSS, J. T. BERGHOFF.

SUB-COMMITTEE ON FORENSIC MEDICINE:

W. DICKINSON, J. W. HAWKINS.

ON MEDICAL ETHICS:

T. B. LESTER, C. T. HOLLAND, F. M. JOHNSON.

ON STATE MEDICINE:

H. H. MUDD, W. HUMPHREY, T. B. JACKSON.

ON PUBLICATIONS:

W. B. OUTTEN, J. H. THOMPSON, G. F. HULBERT,
WALTER COLES, J. C. MULHALL.

ON THE ANATOMY ACT:

C. A. TODD, W. A. MCCANDLESS, E. R. LEWIS,
J. D. GRIFFITH, J. W. HEDDENS.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION:

J. H. DUNCAN, T. C. BOULWARE, T. B. LESTER,
W. DICKINSON, W. B. OUTTEN,
F. J. LUTZ, W. P. KING, D. H. SHIELDS,
R. F. BROOKS, A. W. MCALESTER,
G. F. DUDLEY, W. E. EVANS, E. R. LEWIS.

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MEMBERS FOR 1886.

NAME.	RESIDENCE.	DELEGATE FROM.
ALLEN, F. W.	Barryville.	Macon Co. Med. Soc'y.
ALT, A.	St. Louis.	St. Louis Ger. Med. Soc'y.
BASKETT, N. M.	Moberly.	Moberly Dist. Med. Soc'y.
BAKER, J. H. P.	Salisbury.	Chariton Co. Med. Soc'y.
BERGHOFF, J. T.	St. Joseph.	
BEEMAN, S. M.	Chillicothe.	Grand River Med. Soc'y.
BORCK, EDW.	St. Louis.	St. Louis Med. Soc'y.
BOGIE, M. A.	Kansas City.	Jackson Co. Med. Soc'y.
BOND, J. A.	Kansas City.	Jackson Co. Med. Soc'y.
BOULWARE, T. C.	Butler.	Bates Co. Med. Soc'y.
BROOKS, R. F.	Carthage.	Jasper Co. Med. Soc'y.
BROOME, G. W.	St. Louis.	
BROWN, TINSLEY.	Hamilton.	Grand River Med. Soc'y.
BROWN, J. R.	Malta Bend.	Saline Co. Med. Soc'y.
BRYANT, W. H.	Savannah.	N. W. Dist. Med. Soc'y.
BRYSON, J. P.	St. Louis.	St. Louis Med.-Chir. Soc'y.
BURKE, J. L.	Hamilton	Grand River Med. Soc'y.
CAMPBELL, J. L.	Macon.	Hodgen Med. & Sur. Soc'y.
CARTHRÆ, LEWIS.	Higginsville.	Lafayette Co. Med. Soc'y.
CAVE, E. S.	Mexico.	Linton Dist. Med. Soc'y.
CLAY, H. S.	St. Charles.	
COLES, WALTER.	St. Louis.	St. Louis Med. Soc'y,
DAVIS, J. B.	Marshall.	Saline Co. Med. Soc'y.
DEWEY, G. M.	Keytesville.	Moberly Dist. Med. Soc'y.
DICKINSON, WM.	St. Louis.	St. Louis Med. Soc'y.
DRAKE, N. A.	Kansas City.	Jackson Co. Med. Soc'y.
DUDLEY, G. F.	St. Louis.	St. Louis Med. Soc'y.
DUNCAN, J. H.	Kansas City.	Jackson Co. Med. Soc'y.
DYSART, B. G.	Paris.	Moberly Dist. Med. Soc'y.

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EVANS, W. E.	Boonville.	John McDowell M. Soc'y.
FISCHEL, W. E.	St. Louis.	St. Louis Med. Soc'y.
FITZGERALD, O. D.	Lathrop.	Kansas City Med. Soc'y.
FRENCH, PINCKNEY,	Mexico.	Audrain Co. Med. Soc'y.
FRYER, B. E.	Kansas City.	Jackson Co. Med. Soc'y.
FULKERSON, P. S.	Lexington.	Lafayette Co. Med. Soc'y.
FULTON, A. L.	Kansas City.	Jackson Co. Med. Soc'y.
FUNKHOUSER, R. M.	St. Louis.	St. Louis Med. Soc'y.
GANT, H. T.	Keytesville.	Chariton Co. Med. Soc'y.
GANT, J. O. K.	Plattsburg.	Kansas City Med. Soc'y.
GILLETT, J. S.	Rich Hill.	Bates Co. Med. Soc'y.
GIVENS, H. K.	Fayette.	Moberly Dist. Med. Soc'y.
GLENN, J. O.	Shannondale.	Chariton Co. Med. Soc'y.
GORE, A. E.	Moberly.	Moberly Dist. Med. Soc'y.
GREGORY, E. H., Sr.,	St. Louis.	St. Louis Med. Soc'y.
GRIFFITH, J. D.	Kansas City.	Jackson Co. Med. Soc'y.
GOBEN, G. A.	Kirksville.	
HALL, C. LESTER,	Marshall.	Saline Co. Med. Soc'y.
HART, B. F.	Brownsville.	Saline Co. Med. Soc'y.
HAWKINS, A. S.	Cassville.	S. W. Mo. Med. Ass'n.
HAWKINS, J. W.	Glasgow.	Moberly Dist. Med. Soc'y.
HEDDENS, JOS. W.	St. Joseph.	
HODGEN, H.	St. Louis.	St. Louis Med. Soc'y.
HOLLAND, C. T.	Keytesville.	Chariton Co. Med. Soc'y.
HOLMAN, R. S.	Boonville.	Jno.McDowell Med. Soc'y.
HOMAN, G.	St. Louis.	St. Louis Med.-Chir. Soc'y.
HUNLOCK, E. R.	Hughesville.	Pettis Co. Med. Soc'y.
HUGHES, C. H.	St. Louis.	St. Louis Med. Soc'y.
HUMPHREY, W.	Moberly.	Moberly Dist. Med. Soc'y.
HULBERT, G. F.	St. Louis.	St. Louis Med. Soc'y.
HURT, G.	St. Louis.	St. Louis Med. Soc'y.
JACKSON, J. W.	Kansas City.	Jackson Co. Med. Soc'y.
JACKSON, T. B.	Macon City.	HodgenMed.&Surg.Soc'y.
JENNINGS, C. A.	Triplett.	Chariton Co. Med. Soc'y.

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KING, R. M.	St. Louis.	St. Louis Med. Soc'y.
KING, W. P.	Sedalia.	Pettis Co. Med. Soc'y.
KNOCHE, J. P.	Kansas City.	Jackson Co. Med. Soc'y.
LAMB, C. L.	Hannibal.	Hannibal Med. Soc'y.
LONG, J. M.	Rich Hill.	Bates Co. Med. Soc'y.
LANE, H. M.	Carthage.	Jasper Co. Med. Soc'y.
LAIDLEY, L. H.	St. Louis.	St. Louis Med. Soc'y.
LEE, ELMER.	St. Louis.	St. Louis Med. Soc'y.
LESTER, C. H.	Kansas City.	Jackson Co. Med. Soc'y.
LESTER, T. B.	Kansas City.	Jackson Co. Med. Soc'y.
LEWIS E. R.	Kansas City.	Jackson Co. Med. Soc'y.
LLOYD, T. B.	Paris.	Moberly Dist. Med. Soc'y.
LOGAN, J. E.	Kansas City.	Jackson Co. Med. Soc'y.
LUCAS, W. B.	Mendon.	Chariton Co. Med. Soc'y.
LUTZ, F. J.	St. Louis.	St. Louis. Med. Soc'y.
MARTIN, T. A.	St. Louis.	St. Louis Med. Soc'y.
MARTIN, J. W.	Platte City.	Platte Co. Med. Soc'y.
MARSH, J. T.	Liberty.	Clay Co. Med. Soc'y.
MATTHEWS, L. J.	Carthage.	Jasper Co. Med. Soc'y.
MCALESTER, A. W.	Columbia.	Boone Co. Med. Soc'y.
MCCANDLESS, W. A.	St. Louis.	St. Louis Med. Soc'y.
MEISENBACH, A. H.	St. Louis.	St. Louis Med. Soc'y.
MIDDELKAMP, H. H.	Warrenton.	Linton Dist. Med. Soc'y.
MILAM, B. J.	Macon City.	Macon Co. Med. Soc'y.
MITCHELL, W. F.	Lancaster.	
MILLER, A. B.	Macon City.	
MOORMAN, H. H. D.	Keytesville.	Moberly Dist. Med. Soc'y.
MORRIS, W. H.	Miami.	Saline Co. Med. Soc'y.
MORROW, C. J.	Kansas City.	Jackson Co. Med. Soc'y.
MOSS, WOODSON,	Columbia.	Boone Co. Med. Soc'y.
MUDD, H. H.	St. Louis.	St. Louis Med. Soc'y.
MULHALL, J. C.	St. Louis.	St. Louis Med. Soc'y.

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NELSON, E. M.	St. Louis.	St.Louis Med.-Chir.Soc'y.
NORTON, J. J.	Paine.	Monroe Co. Med. Soc'y.
OHMANN-DUMESNIL, A. H.	St. Louis.	St. Louis Med. Soc'y.
OUTTEN, W. B.	St. Louis.	St. Louis Med. Soc'y.
POLLAK, S.	St. Louis.	St. Louis Med. Soc'y.
PREWITT, T. F.	St. Louis.	St. Louis Med. Soc'y.
REDMAN, SPENCE,	Platte City.	Platte Co. Med. Soc'y.
REMICK, O. F.	Butler.	Bates Co. Med. Soc'y.
RIEGER, J. H.	Kansas City.	Kansas City Med. Soc'y.
SEXTON, W. P.	Mexico.	Linton Dist. Med. Soc'y.
SHAW, A. B.	St. Louis.	St. Louis Med. Soc'y.
SHELLY, O. C.	Pink Hill.	
SHIELDS, D. H.	Hannibal.	Hannibal Med. Soc'y.
SIMPSON, W. R.	Chillicothe.	
SLOAN, A. B.	Kansas City.	Kansas City Med. Soc'y.
SMALL, E. N.	Sedalia.	Pettis Co. Med. Soc'y.
SMITH, T. HARDY,	St. Louis.	St. Louis Med. Soc'y.
SMITH, F.	Hannibal.	Hannibal Med. Soc'y.
SPENCER, H. N.	St. Louis.	St.Louis Med.-Chir. Soc'y.
SEEBER, C. W.	Higgingsville.	Lafayette Co. Med. Soc'y.
STEELE, A. J.	St. Louis.	St.Louis Med.-Chir. Soc'y.
THATCHER, J. P.	Pisgah.	Cooper Co.
THOMPSON, C. A.	Jefferson City.	Treas. State Med. Ass'n.
THOMPSON, J. H.	Kansas City.	Sec'y State Med. Ass'n.
TRADER, J. W.	Sedalia.	Ex-Pres. State Med. Soc'y.
TYREE, W. C.	Kansas City.	Jackson Co. Med. Soc'y.
VAN EMAN, J. H.	Kansas City.	
WALE, D. V.	Jasper.	Jasper Co. Med. Soc'y.
WESSELER, F. W.	St. Louis.	St. Louis Med. Soc'y.

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WILLIAMS, O. A.	Aikensville.	Jno. McDowell Med. Soc'y.
WOOD, J. B.	Waverly.	Saline Co. Med. Soc'y.
YATES, P. C.	Neosho.	
YATES, W. V.	Caseyville.	Macon Co. Med. Soc'y.

MEMBERS BY INVITATION:

BEARD, J. H.	Vincennes, Ind.	
BOOTH, D. S.	Sparta.	Ex-Pres. Ill. State Med. Ass'n.
BYRD, W. S.	Quincy.	Pres. Ill. State Med. Ass'n.
CHRISTIAN, G. W.	Dallas, Texas.	
COOK, E. P.		Ex-Pres. Ill. State Med. Ass'n.
CUPPLES, GEORGE,	Dallas, Texas.	
EASTLAND, O.	Dallas, Texas.	
FARRELL, F.	Dallas, Texas.	
MCLAUGHLIN, J. W.	Dallas, Texas.	
PAYNE, J. F. Y.	Dallas, Texas.	
RENFRO, J. C. B.	Dallas, Texas.	
TYNER, T. J.	Dallas, Texas.	
WILKES, W. H.	Dallas, Texas.	
WORROW, C. J.	Kansas City.	Jackson Co. Med. Soc'y.

MINUTES AND REPORTS OF PUBLICATION COMMITTEE.

ST. LOUIS, May 18th, 1886.

A meeting was held May 18th, at the office of Dr. Walter Coles; Dr. Outten, the chairman, presiding; Drs. Coles, Hulbert and Mulhall present. It was determined that papers should be printed in the order presented. It

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was decided that one hundred and fifty copies of a cloth-bound edition of the Proceedings for 1886, be printed, and one hundred and fifty paper-bound. The Secretary was instructed to secure sealed bids from book printers, and that, as specification, be presented a volume of the Transactions for 1885. It was agreed that the Constitution and By-Laws of the State Medical Association, and the National Code of Ethics be printed, as well as a list of officers from the time of the organization to the present, and the places of meeting.

St. Louis, May 31st, 1886.

The committee again met. Members present: Drs. Outten, Coles and Mulhall. Bids from F. M. Rumbold, J. H. Chambers & Co., and Ev. E. Carreras, were opened, and the contract for printing awarded the last mentioned, his bid being the lowest. Adjourned.

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BOSTON MEDICAL
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MINUTES.

FIRST DAY.

The Twenty-Ninth Annual Meeting of the Missouri State Medical Association convened at St. Louis, May 3d, 1886, in Entertainment Hall of the Exposition Building, and was called to order at 10:20 A. M., by the Chairman of the Committee of Arrangements, Dr. C. H. Hughes, who read an address of welcome.

Dr. C. A. Todd, of St. Louis, First Vice-President, in the absence of Dr. Catlett, took the chair.

Dr. Lutz moved that, inasmuch as the hall was too dark for the transaction of affairs, that the Association take a recess of twenty minutes, and meet in the vestry of the First Presbyterian Church, opposite, which had been kindly tendered. Carried.

Dr. J. W. Jackson, in the absence of Drs. Todd and Brent, took the chair.

Dr. Lutz moved that the minutes as published in the transactions for 1885 be considered as read, and that the following correction be made on page 9: For the words, "The State Association should impress upon the local societies the same injunction," be substituted, "That the delegates of this Association be instructed to present this resolution to the societies to which they are accredited." Carried.*

* This refers to the resolution introduced in 1885 by Dr. Lutz, the sense of which was that all larger medical societies should demand of their members strict adherence to the Code of Ethics of the American Medical Association.

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Dr. Byrd, of Quincy; Dr. Beard, of Vincennes, and Dr. Booth, of Sparta, were, on motion of Dr. Lutz, invited to take part in the proceedings of the Association. Carried.

Dr. Matthews moved that the same invitation be extended to all visiting physicians. Carried.

Dr. Beard, of Vincennes, on motion of Dr. Lutz, explained the purpose of the organization of the Mississippi Valley Medical Association. That it was entirely a scientific body, that it believed in the Code of Ethics, that the only qualifications for membership were gentlemanly conduct and professional attainment. He invited the Association to send delegates on that platform.

The Committee on Credentials made a partial report.

The Secretary read a communication from the Woman's Christian Temperance Union, the principal import of which was, that the evils consequent on the use of alcohol be made a matter of instruction in the public schools of the State. The Association was asked to indorse this proposition. Referred to the Committee on State Medicine.

The Committee on Scientific Communications made the following partial report, after explaining that papers would be read by title only:

"Case of Addison's Disease, Associated with Gastric Ulcer, *Post-mortem*." By N. M. Baskett, of Moberly.

Report of Chairman on "Collective Investigation of Disease." By B. F. Hart, of Brownsville.

Report of State Board of Health to Missouri State Medical Association. By George Homan, St. Louis.

"Unusual Case of Syphilis." By A. H. Ohmann-Dumesnil, of St. Louis.

Dr. Shields moved that the report of the Committee on Credentials be considered the calling of the roll. Carried.

Dr. C. Lester Hall's resolution, introduced in 1885, the

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sense of which was that the Association have a permanent meeting place, to be located at Sweet Springs, was voted upon and lost, after discussion by Drs. Steele, C. A. Thompson and Lester Hall.

The Chairman appointed the following Committee on Nominations: Drs. Lutz, O. A. Williams, Pinckney French, J. H. Duncan and T. C. Boulware.

On motion the Association adjourned till 3 P. M.

AFTERNOON SESSION.

Called to order at 3 o'clock P. M., Dr. D. H. Shields presiding.

The Treasurer made the following report:

To balance in Treasury, May 15th, 1885	$366 82
" dues of membership	417 00
" receipts for *Transactions*	4 00
	$787 82
By paid approved accounts, herewith submitted	347 73
To balance in Treasury	440 09

C. A. THOMPSON, *Treasurer.*

Referred to Auditing Committee, who reported as follows:

We, your Auditing Committee, have examined the books and vouchers of Dr. Thompson, our Treasurer, and find them correct, and we recommend that his report be accepted and placed on file.

D. H. SHIELDS.
H. H. MIDDLEKAMP.
N. M. BASKETT.

Report accepted.

Dr. Matthews moved that the dues for this year be remitted, except those for new members.

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Dr. Shields called attention to a by-law making such a motion out of order.

Dr. E. R. Lewis moved an amendment that the word "refunded" be substituted for the word "remitted," in Dr. Matthews' motion. Carried.

Through Dr. Nelson the Association was invited to visit the St. Louis Training School for Nurses.

Invitations were also extended to visit the Beaumont Hospital Medical College, the Museum of Fine Arts, the Manual Training School of Washington University, and the Post-Graduate School of Medicine and Poly-clinic, at which latter a reception would be tendered at 8:30 P. M.

All invitations accepted.

Dr. Gant moved to have this year's transactions published in pamphlet form.

Dr. Lutz moved an amendment that the Publication Committee be instructed to publish the transactions as heretofore. Carried.

Dr. Nelson offered the following resolution, which, under the rules, must be laid on the table for one year:

Resolved. That no paper shall be received by the Missouri State Medical Association or published in its transactions unless such paper is ready to be placed in the hands of the Secretary immediately after reading the same.

The Committee on State Medicine made the following report:

Resolved, That we, your Committee, to which was referred the communication from the ladies of the Woman's Christian Temperance Union, would beg leave to report that while we do not indorse the "whereas-es" we do indorse and recommend the teaching of physiology and hygiene in the public schools, and urge the dissemination of all true and useful knowledge.

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Dr. Matthews offered the following amendment: that to the recommendation in teaching be added the words "special effect of alcohol and other narcotics upon the human system."

Discussed by Drs. Hughes, Willis P. King, Lewis, Johnson, Matthews and Shields.

The report of the Committee was accepted; the amendment lost.

On motion the entire resolution from the Woman's Christian Temperance Union was laid on the table.

Dr. J. H. Thompson moved that the Association proceed to the election of officers. Dr. J. W. Jackson, of Kansas City, was unanimously elected president.

The Committee on Nominations reported as follows:

Your Committee on Nominations for Officers of the Association for the coming year, beg leave to report the following:

1st Vice-President, WOODSON MOSS, of Columbia, Mo.
2d " " W. E. FISCHEL, of St. Louis, Mo.
3d " " C. L. LAMB, of Hannibal, Mo.
4th " " TINSLEY BROWN, of Hamilton, Mo.
5th " " J. S. GILLETT, of Rich Hill, Mo.

For Recording Secretaries, J. C. MULHALL, of St. Louis, and E. CAVE, of Mexico, Mo.

For Corresponding Secretary, R. F. BROOKS, of Carthage, Mo.

For Treasurer, C. A. THOMPSON, of Jefferson City, Mo.

F. J. LUTZ,
PINCKNEY FRENCH,
O. A. WILLIAMS,
J. H. DUNCAN,
T. C. BOULWARE.
} Committee.

The report was received and unanimously adopted.

Dr. H. H. Mudd, read the following resolution, introduced by Dr. C. A. Todd.

WHEREAS, The existing statute known as "The Anatomy Act" has proven to be altogether inadequate in its intended operation, rather hindering the practical study of anatomy than favoring it; and

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Whereas, It will require a great effort on the part of the profession of the State to secure the passage of a more equitable statute; be it

***Resolved*, That this body, representing the medical interests of the State, hereby pledge itself to use every means during the remainder of the present year to influence the members of the State Legislature to the end, that at its next sitting, January, 1887, a more satisfactory statute be enacted, that shall at least be not less liberal than such as already exists in other States of the Union. Also that this body, in view of the importance of the matter urge action, in the same direction, upon all local societies and upon all individual members of the profession, who may independently be able to give effective service.**

Carried.

Dr. Dickinson moved that a committee of three be appointed to draw up a law to that effect. Carried.*

Dr. Hughes offered the following resolution:

***Resolved*, That this Association recommends the teaching of the facts of science respecting the influence of alcohol on the human organism, in all schools—public or private—of the country.**

Dr. Gore moved that the resolution be laid on the table. Carried.

Committee on Scientific Communications made the following additional report:

The President's annual address. D. H. Catlett, of St. Joseph.

Report of Committee on State Medicine.

"The Curability of Epilepsy and Epileptoid Convulsions by Galvanism and the Phosphited and Arseniated Bromides." By C. H. Hughes, M. D.

Report of Committee on Medical Education. J. R. Thatcher.

Report of Sub-Committee on Forensic Medicine. Hiram Christopher, of St. Joseph.

"Treatment of Penetrating Gun-Shot Wounds of the Abdominal Cavity, with Report of Two Cases." Jos. W. Heddens, of St. Joseph.

Dr. Dickinson offered a resolution of thanks to the gentlemen who had given the use of the vestry room of the church. Carried.

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* The President has seen fit to increase this committee to five and appointed the following: C. A. Todd, W. A. McCandless, E. R. Lewis, J. D. Griffith, J. W. Heddens.

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Dr. Jackson, of Macon City, moved that when we adjourn we do so to meet at Macon City. Dr. E. R. Lewis made a like motion in behalf of Kansas City; Dr. Griffith for Sweet Springs; Dr. A. C. Thompson for Springfield and Dr. Clark for Chillicothe.

Voting resulted in favor of Macon City.

Drs. Gore, Dickinson and Renick were appointed a committee to escort the President-elect to the chair, whence he returned appropriate thanks.

On motion the Association adjourned to meet at Macon City, on the second Tuesday in May, 1887.

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ADDRESS OF WELCOME.

By C. H. Hughes, M. D., St. Louis, Chairman Committee of Arrangements.

WITH heartfelt hospitality the profession of St. Louis gives you fraternal welcome and cordial greeting. St. Louis has a warm regard and high appreciation for the medical profession of the State of Missouri. The integrity of its members, their exalted character and high standing is a common honor, which we delight to share and recognize.

We do not honor you in welcoming you to our home, but you have honored us in coming here; as you honor, exalt and benefit the respective communities in which you individually reside.

The true physician is the greatest of benefactors to mankind and "the highest style of man." He stands by the side of man, from his entrance into this world to his exit to the next, leading him with friendly hand, shielding him from the stroke of pestilence, and helping him to successfully fight the physical ills which beset him from the cradle to the grave.

The researches of medical science and the resources of our art, of to-day, are freely bestowed on the people and become public property to-morrow. The value of sunlight and fresh air, pure water, good milk and unadulterated foods and drinks, and how to secure them best, have been taught the people by our profession, together with thousands of sanitary precautions, which they daily enjoy, securing health and life to communities, while the source of these blessings is often unappreciated and unacknowledged by the communities receiving them.

I need only name the vaccinations of Jenner, the inoculations of Pasteur, the discoveries of Koch, in regard to the

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baccilus of phthisis, and the germs of cholera, and quarantine precautions against yellow fever, and the conquering of malaria, to show how great have been the benefits bestowed on mankind by our noble profession; besides, it was our profession that first unshackled the insane and taught the world to cure and not to punish them, and we are now teaching the world that alcoholism is not always crime, but often pitiable disease. We know how pain has been banished through anæsthesia and opium; how lives innumerable are saved through surgery and judicious medication. We know how thousands of ills have been mitigated or cured through our art, and how the ministrations of medicine are falling upon the people like the gentle, but unappreciated, dew upon the recipient earth.

> "The sun smiles on the earth,
> And the exuberant earth returns that smile with flowers,"

not appreciating whence comes their healthful life and beauty. So the kindly ministrations of true medicine are not always justly appreciated by our patients; accustomed to receive so much, they often show their disapprobation that we cannot do more for them. We are expected by the overconfident to do everything, while the skeptical think we can do nothing. We know ourselves and the limit of medical possibilities. We know, also, how great has been the good to the race derived from medicine since our ancient father, Hippocrates, denied the popular superstitions that prevailed in regard to the miraculous power of the priests in the temple of Æsculapius, and Paracelsus dispelled the nervous delusions of the sixteenth century. And knowing this, we know how to appreciate the profession and its work everywhere.

The profession of St. Louis especially honor the noble, self-sacrificing and grand and true country doctor, for it knows the sterling stuff of which he is made; the stern integrity, the patient industry, the plodding toil in the pursuit of the science, under the greatest of disadvantages; the exalted humanity, sweet charity and moral courage which

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characterize him in his daily work. We know how well the profession of the interior, above all other physicians, lives and toils and sacrifices for the welfare of their fellow-men. The long hours in the saddle or the gig, in sunshine or storm, on the way to the man-sufferer; the prompt relief given at the expense of personal rest and comfort; the midnight oil burnt into the wee small hours of the morning, when more selfish souls are wrapped in sleep, casting its rays over the scientific page while the country doctor searches for more light to enable him to brighten the pain-darkened pathway of some disease-stricken fellow, are known to us and appreciated. We, ourselves, know something of a physician's faithful work in the cause of humanity, and we know how to appreciate the far greater sacrifices of our fellows of the interior who have greater trials, less conveniences and comforts in the practice of our science and art, and far more endurance and pluck. You have neither the street car nor Hansom cab to save your horse from night service, nor the telephone to save you from needless night visits, nor the friendly chemist or microscopist, close at hand, to make ready analyses for you when you are tired, nor the accommodating specialist to take your cases off your hands when they become too difficult to diagnose or treat, or too troublesome for the size of their pocket-book, or too importunate for a certain diagnosis, ever eager to see you make brilliant therapeutic strokes beyond the possibilities of remedial resource. You have one advantage, however, over us, you can send such cases to the city, where they cease from troubling you for awhile; but with us, they rapidly go round the vicious circle and soon come back to us like chickens that come home to roost.

But, gentlemen, humor aside. We know how to appreciate you, and we only regret that we cannot, on this occasion, attest our appreciation by such pecuniary compensation as we know all of you deserve, but do not all receive at home for the great work—scientific, self-sacrificing work—which you do in your respective homes. But we give you

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our good wishes and cordial greeting instead, which is all you can expect from the average doctor. The true physician is seldom appreciated anywhere, in accordance with his real deserts and services to the community. He is much less appreciated in the interior country and town practice. We are glad, therefore, to see you here, notwithstanding the life of combined toil and study you lead, enjoying a brief respite from your labors, and we again welcome you, cordially, to this vacation from your cares, and offer you fraternal welcome to our city and our homes.

The Committee of Arrangements of the American Medical Association invite you to membership, and to share in all the entertainments extended to members of that body, on presenting certificate from the society registering.

We meet to-day to do the briefest work of any meeting for many a year, and when we adjourn to-day it will be to mingle with our brethren of the American Medical Association, which meets in this building to-morrow.

The hall which we now occupy we have free of charge, through the hospitable endeavors of the chairman of the Committee of Arrangements of the American Medical Association, which is an evidence of the fraternal good-will of that great body and of the great city of St. Louis, whose leading citizens own this building, and, at our request, have placed it at our disposal.

Again, gentlemen of the Missouri State Medical Association, we cordially welcome and heartily greet you.

The committee is in receipt of a communication from Dr. G. C. Catlett, announcing his inability to be present and preside over your deliberations. We accordingly introduce to you Dr. Charles A. Todd, our First Vice-President.

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Annual Address of President.

By Geo. C. Catlett, M. D., St. Joseph, Mo.

GENTLEMEN:—Your partiality in conferring upon me the honor of presiding over this Association, both secures my appreciation of the preferment and imposes upon me the difficult duties which I most sensitively feel could be performed more creditably and acceptably by other associates.

The selection of an acceptable subject for the annual presidential address, as well as the treatment of it in an interesting and instructive manner, is at all times a difficult duty; but the concurrent convention of the American Medical Association in St. Louis creates a demand for exceptional effort upon the part of any member assuming to claim your attention, and, therefore, renders the presentation of an address at this time of doubtful acceptability.

I am confident that I express the sentiment of this Association, as well as of the profession of the State, in testifying to the profound respect entertained by them for the American Medical Association, as well as fealty to its liberal, humane, just and wise constitutional provisions, instituted for the promotion of the cultivation of the science and art of medicine, and for the proper government of the members of the medical profession. We also have great respect for the memory of the learned, wise and distinguished physicians who were the originators of the American Medical Association, and who have made American medicine honored and respected throughout the civilized world. We therefore value the honor that this learned and distinguished National Association confers upon the profession of Missouri, by holding its Annual Convention in St.

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Louis, and in behalf of the profession of the State we tender to the Association a fraternal welcome, as fervent as the combined warmth of the entire professional heart of the State, and as hospitable as the combined, unlimited resources of the profession and people of this great and populous Commonwealth. In anticipation of the bountiful, varied, palatable, nutritious, intellectual and scientific menu prepared for the medical profession by the members of the American Medical Association, it would be indiscreet to hazard the presentation of a less acceptable collation to your intellectual appetites.

Therefore, my address will be brief and limited to giving the faintest glimpse of the history of the science and art of medicine, and of its rapid advance within the past half a century, and to predict for it still greater achievements in the future.

The plane of medicine has been immeasurably raised within the memory of the older practitioners who are still co-laborers in the science. Not only has this great improvement and elevation in medicine been felt and recognized by the profession, but the intelligent laity and the learned and wise scientist have accorded to it the dignity of a great and profound science which claims both their admiration and confidence.

But recently an eminent and respected man of learning declared that in consequence of the rapid and varied accumulation of exact knowledge in medicine it had emerged from the lower plane of art and of a doubtful science to the fraternity and parallelism of a true science. Also another distinguished scientist lately remarked to Dr. Quain, of London, that if medicine continues to advance as it has within the past decade, in acquiring exact knowledge of the medical and collateral sciences, it will soon take precedence of all other sciences.

In order that these highly eulogistic and laudatory assertions of a votary of medicine shall neither appear to be untrue, inexcusably eulogistic and incredible, accompany

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me as passengers on the historic planet of medicine, in rapid transit through the ages, from its supposed divine and mythological origin; through its mystic and miracle-working periods, passing the dark and superstitious age, merging into the shadowy regions of hypothesis and mental speculation, thence into the cycle illuminated around its border lines by the truths obtained out of the store-house of nature, vitalized by the assistance and aid of reason, induction and experiment; and yet on down through the periods of the evolution of a knowledge of anatomy, physiology, chemistry, pathology and therapeutics of the present era, in which such exactness of knowledge has been obtained, and such skillful use of it made that pain can, with certainty, be prevented and relieved, disease cured, death avoided and life prolonged, thus increasing the sum of man's usefulness and happiness.

PRIMITIVE OR MYSTIC MEDICINE.

Mythological history must become the propitiatory sacrifice to the shades of Apollo, Æsculapius, Hygeia, Panacea, and the priestly caste of the Asclepiades, for the liberty taken in associating their divine persons with unethical conduct in instituting a remedial system which was graciously intended to be administered for the relief of suffering mankind, but which was involved in so much tutelary mystery, and environed by oaths of inviolable secrecy, that the benefits of the art could only be obtained by the few who could secure the favor of the gods and become initiated into their mysteries.

For centuries after the primitive origin of medicine its history is legendary, consisting of many of the most fabulous myths of heathen mythology.

During the dark ages, and for some time afterwards, medicine was chiefly under Arabic influence, and medical writing consisted of dissertations upon the writings of the Ancients, and the practice, mostly confined to the priesthood, was obscured in the mire of ignorance and the degradation of

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gross superstition. These were the days of the astrologer, the sorcerer, the enchanter, the magician and miracle-workers, the cures by prayers and relics, and the use of the disgusting remedies of witches.

THE ADVENT OF SYSTEMATIC MEDICINE.

In the fourth century B. C., Hippocrates, a lineal descendant of the Asclepiades family, who were the hereditary physicians of Greece, illuminated the medical world by his presence. He first studied and investigated medicine as a science and formulated it into a system. His theories were based upon existing knowledge of life, and the prevailing philosophy and speculation of the nature of man and the universe. His philosophy and speculations, though founded in ignorance and defective knowledge, were the budding forth of future medical science, and was a great advance in the investigation of medicine, and was a light in the pathways of all future investigation, knowledge and progress. By singular coincidence his medical works alone span the dark ages, and alone survived the destruction of the Alexandrian Library, and furnished after ages with the priceless history of the past. He classified disease according to the causes, as he determined them by observation. He also investigated the effects of food and climate upon the development of the human body, and made certain race deductions therefrom. He considered four humors of the body as the primary seat of disease, health and disease being dependent upon the balance maintained in the quantity and quality of the humors. Although sects in medicine antedated Hippocrates, yet the medical schools at Rhodes, at Cindos and Cos, which were at this period established, advanced new and different theories. The followers of Hippocrates, jealous of his reputation, and enthusiastic believers in his theories, defended them with great spirit and vigor, and established the sect of the Dogmatici or the Hippocratici. In this manner, through the spirit of ambition and jealousy, at that period as well as in succeeding periods,

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new sects established themselves, advocating theories untenable and baseless, but adapted to the designs of the originators, and detrimental to, and retarding the progress of, medical science. In this spirit and at this period the sect of the Empirici was founded by the School of Cos; also closely followed the sects of Methodici, the Pneumatici, and the Eclectici, and each influenced the direction of investigation and practice of medicine for indefinite periods.

The Latin or Roman nation was not so much afflicted by contending medical sects as other nations. When Rome first appears on the historical horoscope of medicine, Celsus was the luminary which all delighted to honor. He was called the second Hippocrates, because he introduced that system into Rome, and cultivated medical science with great enthusiasm and learning. His writings are monuments of his fame and learning. The next most important era in medicine brought forth the celebrated physician, Galen. His authority was so great that all former sects faded into oblivion, and physicians were ambitious to be called and known as Galenists. The authority of Galen was asserted against all innovations, and especially against the introduction of chemical or alchemical ideas in methods of treatment in medicine. But the later and succeeding followers of Galen pursued the design of freeing medicine from the irrational dogmas, superstitions and cabalistic methods of treatment which had encumbered and degraded it in the past. It is not known whether he ever dissected the human body, but he recognized the necessity of doing so in order to obtain a knowledge of anatomy. He was the most voluminous writer of his own or perhaps any other age. The number of his distinct treatises are estimated to be not less than five hundred. His medical writings comprised treatises on anatomy, physiology, dietetics, hygiene, pathology, diagnosis, semeiology, pharmacy, materia medica, therapeutics and surgery. Although his knowledge of pathology was very limited, he valued the information the

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pulse indicated, and he may be justly considered to be the first authority on its value and indications in disease. Yet, notwithstanding his learning, and earnest efforts to ascertain the truths in nature, he manifested more faith in amulets than in medicine. It is not known where the study of anatomy took its origin. The Druids, who were the priests, physicians and judges, demanded human victims as sacrifices, and may have made use of them for dissecting. Pythagoras first dissected animals, which led to the proper manner and knowledge of dissecting the human body. Erastus was the first to dissect the human body. In 1284 Bernard Gordon taught anatomy in the University of Montpellier. From this time the study of anatomy was abandoned, and further progress in its knowledge was arrested, and again the darkness of ignorance prevailed in regard to the structure of the human body. So great was the ignorance of anatomy that Frederick II., of Sicily, forbade the practice of surgery without a knowledge of anatomy. Versalius revived the study of anatomy, and may be called the father of modern anatomy. He was followed by Fallopius, Harvey, Asselli, Bartholin, Malphigi, and, latterly, Bichat, Müller, Goodsier, Mayer, Weber, Schwann, Valentine, and other illustrious anatomists, who not only acquired a thorough knowledge of general anatomy, but by the aid of injections and the microscope, studied elementary tissues and demonstrated minute structures. As illustrious torch-bearers among the history of anatomy connecting the past with the present, must be mentioned Pacchioni, Valsalva, Morgagni, Santorini, Bichat, Haller, Meckel, Cooper, Monro, Charles Bell and Hunter.

Both physiology and pathology were the outgrowth of a knowledge of general and minute anatomy, and they have kept pace with it from the period when scientific medicine was established in the knowledge of the structure of the human organism. Pathology, as a distinct branch of medical science, was founded by Morgagni, and established upon a firm foundation of an indispensable science by

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Hunter, Baillie, Meckel, Laennec, Cruvelhier, Louis, Andral, Virchow, Bennet and others.

In making this rapid transit of historical medicine time permits only of the mere mention of the most prominent theories and hypotheses of the near past, which may be said to form a well-marked boundary line between uncertain theoretical medicine of the past and the exact scientific medicine of the present.

Aristotle's and Galen's views of the nature of life, which were embraced in the animism of Hoffman and Stahl, impressed the medical mind for ages. Haller and Barthez also taught, in the theory of vitalism, the same doctrines which yet, more or less, influence the public mind. The theories of Cullen and Brown made a lasting impression upon the entire medical profession, and influenced the practice of medicine for many years. Cullen maintained that all disease was the result of opposite conditions of spasm and debility, and Brown maintained that disease was either sthenic or asthenic, and that the treatment was either tonic and stimulating, or depletive and depressant. The most dominating theory Broussais promulgated. He held gastro-entro-entritis is the basis of pathology, and local depletion the remedy for fever.

With this imperfect glimpse of the history of the progress of medicine, and of the theories which directed the practice, we would gladly consign its false doctrines, its erroneous theories, its irrational treatment of disease, its impending and obstructing influences to the acquisition of knowledge, to the oblivion of forgetfulness, were it not that out of this chaos has struggled into existence a true science, and art of medicine which daily relieves millions of human sufferers.

I shall not attempt to embrace in this address the details in the improvement and progress of modern medicine, which substitutes accuracy in our knowledge of every branch of medicine for the previous uncertainty and vagueness, but will limit the citations to the more recent advances.

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Modern investigation has added little to the previous accurate knowledge of gross anatomy, but the microscope opened up a new field of investigation both in minute morbid structures and in healthy tissues. In this connection it is sufficient to mention the very satisfactory progress, both as regards extent and accuracy which histology has made.

Physiology, or the investigation of the phenomena of the living body, so long impeded by fallacious notions of a vital principle, followed in the pathway of pathology, and was subjected to the same principles of investigation which govern other experimental sciences. Applying these methods of investigation both to healthy and diseased activities, physiologists have accomplished grand results. Physiology has also been greatly assisted by chemistry. The knowledge of the composition of the blood and of the secretions has improved our knowledge of the complex chemistry of the tissues, as it also has of the chemistry of digestion and respiration.

Pathology being only the application of physiology to diseased conditions, when physiology secured a scientific recognition, pathology also advanced to a sound rational basis of progression. Thus by this rational process of study and investigation was evolved cellular pathology or the physiology of morbid structure and action. By following these principles of investigation through every morbid process, pathology has made rapid and substantial improvement. Ætiology or the causation of disease is now sought for in conditions produced by disturbed and insalutary surroundings or in defective inherited tendencies, and not to malignant spirits or evil humors of the past ages. I have only time to mention the diseases whose causes have been so well established, that ascertained preventive means will not only limit but will eradicate them. These also include a number of infectious and destructive diseases in the domestic animals which have been subjected to modern scientific control, thus saving unestimated values to the people. In the human family small-pox, cholera, scarlet fever, typhoid

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and typhus fevers, yellow fever and diphtheria, may be said to be almost completely under modern subjection. There is really no organ, structure or function of the body, in health or disease, where modern methods of investigation have not increased greatly our knowledge.

The microscope again has served to demonstrate the structures in connection with new growths, both as to their distinctive characteristics and their relation to their associated tissues, the structural lesions. Also degenerating processes are recognized and more closely defined by the same means. The increased knowledge of the causation of disease and of its structural manifestations has tended to a better understanding of morbid processes, such as inflammation and the pathology of fever, both of which have in times past given rise to endless discussion. The influence of the nervous system, both in relation to healthy functions and disease, over tissue changes, is now recognized, but not satisfactorily understood sufficiently, at least, not so as to give prominence to neural pathology over the former belief that attributed every malady to some vitiated condition of the blood.

The acquisition of knowledge relating to the physiology and pathology of the brain and nervous system, and also of the treatment of cerebral and nervous diseases, has made rapid and brilliant advancement during the past few years.

A greater number of eminent and learned physicians of all nations have given their energies and talents to the investigation of these subjects than to any other researches in medical science.

It is impossible, in the limited view here attempted of the progress of medicine, to mention even the names of the eminent physicists and neurologists.

Cerebral physiology has been notably advanced by the localization of the cerebral functions. The physiological investigations into the functions of the cortex opened the way for equally great advancement in the knowledge of the pathology of the brain, so that lesions, tumors and ab-

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scesses may be diagnosed and located with great certainty.

The mere mention of a few such names as Brown-Sequard, Hutchison, Hughlings Jackson and Charcot, will recall the many and great advances which have been made in the knowledge of the physiology and pathology of the nervous system, as well as in the treatment of nervous diseases.

It is especially noteworthy to emphasize that the tendency of the progress in brain and nervous physiology and pathology has been to improve the treatment of these affections, and also to revive the somewhat obscured idea that the great object of obtaining a knowledge of the science of medicine is its application to the cure of disease and the relief of pain, and not merely to obtain exact knowledge in pathology and etiology.

Notwithstanding parasites and fermentation processes have long been thought to be the cause of acute diseases, and of the various forms of fever, yet no certain knowledge was obtained in regard to parasitic pathology until within the past thirty-five years, when Greely and Schwann discovered certain parasites. Another advance was made in 1873, when Obermeier discovered the spirillum of relapsing fever. The study of bacterology by Koch, and a whole army of eager workers, has originated a new era in pathology and greatly changed the views of the nature of disease. But the truth of this captivating discovery and the beneficial, practical results, are yet to be determined. I could not do justice to modern progress without mentioning a new line of scientific inquiry, experimental pathology, which promises so much in the future. The advance in the science and art of clinical observation has been equally satisfactory to the observer and beneficial to the observed. The patient of to-day has the inestimable benefit, first, of Lannec's discovery in 1819, of the stethoscope, and, later, of the ophthalmoscope, invaluable in the detection of diseases of the eye, and a valued aid in the diagnoses of diseases of the brain and

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spinal cord, and other diseases associated with morbid conditions of the kidneys. The laryngoscope has conferred blessings upon sufferers from the diseases of the throat and chest. The sphygmograph and cardiograph are also valued aids in diagnoses. The number and value of the blood corpuscles are revealed to us by instrumental means. The clinical thermometer is so generally in use that it could not be dispensed with satisfactorily by the sick or physician. The electric battery and the microscope are simply indispensable to accurate diagnosis and treatment. Chemistry reveals the composition of the secretions, chiefly the knowledge of the constitution of the urine, which is alike indispensable to diagnosis and treatment. These are the aids which have increased our knowledge of symptomatology in general and especially of the nervous system. By them many forms of disease previously unknown are recognizable and clearly defined. In speaking of the progress of medicine there must be included the departments of general surgery and gynæcology. The progress in these departments has been so great and important to the life and well-being of mankind, that no attempt can here be made to fully report them. The surgical patient of to-day has at his command the use of electricity, of anæsthetics, of antiseptics, of the hypodermic syringe, of a vast number of ingenious instruments and mechanical inventions adapted either to the radical cure or to the relief and mitigation of his disease or injury. He has also brought to his relief anodynes and and narcotics, capable of introduction into the system by methods which preclude the possibility of failure of affording immediate relief from pain, such as morphia, atropia, hydrochlorate of cocaine and nitrite of amyl. Then also he has antiseptics and antipyretics, with chloral and the bromides, all comparatively new remedies, the results of modern progress.

How stands this enumeration of remedial agents which modern medicine brings to the relief of the medical or surgical patients, compared with the agents used by the phy-

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sicians of the past? The answer may be summed up in the positive assertion that the pain and suffering, the result of disease and injury, have been immeasurably relieved, and that the sum of human life is unquestionably prolonged.

THE FUTURE OF MEDICINE.

When we consider the rapid and substantial progress that the science and art of medicine has made during the last half century, we are justified in the belief that with the increased facilities for investigation and research, together with an increasing desire to acquire positive and accurate practical knowledge of medical science, that the progress will be more rapid, exact and beneficent in the future than it has been in the past. I feel assured that there is a great and gratifying future before us for medicine, while the progress in physiology, pathology, ætiology, chemistry and therapeutics has been incredibly great and positively accurate, and greatly increasing the sum of practical knowledge. The most marked and beneficent advance which has been made within the past quarter of a century has been in the direction of preventive medicine.

The application of the knowledge of the germ theory to the causation of disease, and the successful efforts that have been made to control germ evolution and to limit their influence to produce disease, has inspired universal confidence in scientific, progressive medicine. Preventive medicine has already become a separate branch, and is destined to lead in the march of progress. It is also pleasing to contemplate that the exploration of truth, the acquisition and extension of knowledge, the seeking of proficiency in our profession, will create and maintain a spirit of pride and chivalry that will extend and broaden the lines between the learned and skillful physician, and the ignorant, unskillful pretender.

It is, therefore, no Utopian conception to entertain the hope that the future cultivators of the science of medicine, by their exalted conception of the object and humane

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purposes of medical science, will elevate the practice and art of medicine to a more noble sphere than a mere art to obtain the necessities of life. In this grand march of the great future of medicine I feel assured that the profession of Missouri will keep pace with the profession of the sister States of the Union.

In conclusion, I am most sensible of the imperfections of this attempt to embrace, in a necessarily limited address, even the most prominent events in the history, progress and advance of medicine. I hope that the tendency of its spirit may inspire the members of the Association with increased enthusiasm in the search for scientific knowledge, and with an increased appreciation of the exalted mission of medicine, the preservation of life and the relief from suffering.

Appreciating the honor the Association has conferred upon me of presiding over it, I further rely upon the continuation of its partiality and beg it to deal kindly with my many official deficiencies.

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ESSAYS.

ADDISON'S DISEASE, ASSOCIATED WITH GASTRIC ULCER AND PERFORATION OF THE STOMACH.

POST-MORTEM.

By N. M. Baskett, M. D., Moberly, Mo.

CRITICAL research, analysis and investigation, have characterized the members of our profession for the last fifty years. Long study and constant labor have served to abolish many previously existing theories and to solve many apparently profound mysteries. Still much of medicine is dark and mysterious. Many of the fields of our profession are still seen as through a glass, darkly. Many interesting subjects have scarcely been elucidated, and the normal functions, as well as the pathological conditions of several organs of the human system, after patient and protracted investigation, still elude the peering eye and the analytical brain, and retain their position on the confines of knowledge as veritable *terræ incognitæ.*

No organs have more puzzled the anatomist, the physiologist and the pathologist than those which are known as the ductless glands. Situated in the body in intimate anatomical association, with important organs whose functions have been well defined, it is difficult to believe that they perform an unimportant part in the work of the human economy. This fact is the more apparent when we consider that the pathological conditions of these bodies almost

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universally exert a disastrous influence upon the vitality of the individual affected.

The suprarenal capsules are not exceptions to the principles here enunciated. Belonging to the ductless glands, their functions have not been defined. In close and intimate relation with the kidney they possess an anatomical structure almost anomalous, or entirely so, in the human body. In size, apparently, unimportant, clinical facts manifest that the destruction of the organ is invariably attended with disastrous results. Still, the character of the labor which they perform in health is almost entirely unknown, and the pathology of their disease, while frequently inspected and analyzed, is still doubtful.

In 1849 Addison announced the disease which bears his name. But few facts of importance have been discovered since then concerning it. A little more thorough knowledge regarding the changes occurring in the organs during the progress of the disease, and a slightly better classification of symptoms, are all the advancement of which we can boast since Addison's time.

Addison's description was a graphic one. The bronzing of the skin, the languor, weakness and inability to perform manual labor, the small, compressible and irregular pulse, the pearly whites of the eyes, occasional nausea with vomiting and the tendency to death from asthenia, were all delineated by a master hand.

It appears the capsules are intimately concerned in the excretion and removal from the system of some material whose retention is noxious to vitality. Whether they are anatomically associated with the sympathetic or glandular system or not, one fact is apparent, that a healthy performance of their labor is absolutely essential to health. The pigmentary deposit, if it can so be called, which ensues upon this disease, manifests the presence of material which should be eliminated. It is possible that the retention of this substance in the blood so reacts upon the nervous system as to produce the asthenia which is such a marked symptom

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of the disease. Or, it is possible, that the capsules themselves are a storehouse of energy for the sympathetic system, and that the development of a pathological condition in them lowers the vitality of the sympathetic system and prevents the performance of the vital functions at a proper standard. Vulpian states the blood of the suprarenal capsules gave special reactions to various tests. Addison believed the organs were connected in function with the sympathetic ganglia. Brown-Sequard showed that by crushing the organs in the hare, death could be produced; and Kolliker has advanced the theory that the functions of the organs are dual; that of a glandular organ and a part of the nervous system.

The nature of the disease is also a mooted question. Wilks considers it a special disease, probably inflammatory in its nature, always followed by certain results and attended with characteristic symptoms. Bristowe thinks it a cheesy degeneration of a tubercular nature, while Hartshorne regards it as a constitutional cachexia, frequently associated with scrofula, particularly scrofulous caries of the vertebræ.

The complications and associations with other diseases are given by Wilks as vascularity or apparent hypertrophy of the intestinal canal. "Brunner's glands, in the duodenum, and solitary glands in the ileum and colon," says he, "have been found more than usually prominent in morbus Addisonii." "Occasionally tubercle has been met with in the lungs, and this has confirmed the opinion in the minds of some that the disease is scrofulous; but it must be stated that the deposit in the lungs has generally been of the same nature as that in the capsules, the true nature of which has been the subject of discussion."

In a few cases caries of the spine has been found associated with the disease adjacent to the capsules. "In these cases," says Wilks, "the disease of the spine must be regarded as the older."

It will thus be seen that Wilks regards the conditions as a disease separate and apart from all others.

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A gentleman, residing at Centralia, Mo., recently called upon me requesting my opinion concerning the nature of an affection which had manifested itself several months previously. There was persistent languor, weakness and disability to perform manual labor. The pulse was small and compressible, the whites of the eyes glistening and pearly, and the appetite much impaired. The skin was bronzed, not as some writers say like the mulatto, but more like the Indian. This condition had developed rapidly. There was marked tenderness over the region of the suprarenal bodies. There was occasional vomiting without much nausea. The asthenia was marked, though he presented no excessive evidences of anæmia or wasting. To use his own words: "People say I look strong enough to work, and I suppose I do, but I feel utterly prostrated almost all the time." Palpation and pressure over region of liver, spleen and stomach revealed no indication of any disease of those organs. The tongue was clean and healthy. Examination of the urine revealed nothing abnormal in quality or quantity. I diagnosed Addison's disease; placed him on Greenhow's prescription of chloroform, glycerine and iron, and sent him home without encouragement. I have not since heard from him.

During the month of January last I was approached by a gentleman who desired to be examined for insurance in one of our assessment societies. This man was a tinner, between 40 and 45 years of age, and had been constantly engaged in the labors of his trade for several years past. A few questions elicited the fact that two of his family had probably died from consumption, although he was not positive. I told him it would be necessary for him to inform himself more thoroughly about his family history before I would consent to examine him. He left, promising to do so, but did not present himself for examination again.

In a few weeks I heard he was dangerously ill from some supposed malignant disease of the stomach. I learned, too, that the physician in attendance had him under observation sometime during September last, and had expressed

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the opinion at that time that there was probably some cancerous trouble in the stomach. The applicant had continued to labor at his trade up to the time within three weeks of his death. There was no history of hemorrhage or much vomiting, but a constant pain, not of a very acute nature, in the gastric region. The disease was not sufficient to confine him to bed until about the first of March.

The condition progressed from bad to worse until Friday, the 19th of March, when the applicant died. I learned then, that subsequent to coming to my office, he had applied to the examining physician of another order for insurance, had been examined and accepted as a good risk. During his examination he had stated that he had learned that his relatives did not die of consumption, and that there was no derangement of his digestive organs. He was admitted to the order during the month of February upon paying the initiatory fee and an advanced assessment.

A few days after admission he sent for the physician, who had diagnosed malignant disease of the stomach, stating he was worse, and placing himself under treatment. He grew steadily worse until his death, which occurred about five weeks after admission to the order.

He was insured for $3,000, and his early death naturally caused considerable feeling amongst the members of the organization. The attendant physician during his last sickness diagnosed "malignant disease of stomach and liver, and possibly kidneys." It was regarded by the members of the order as remarkably singular, that the examining physician could overlook such a grave condition of disease. The latter stated it was impossible for the patient to have had any such disease at the time of examination, and if he had, the questions propounded had not been answered truthfully. The applicant was buried on the 21st.

Gossip and comment still continuing, the examining physician determined to have the body exhumed and an autopsy held. This was done on March 25th. The attending physician and the examiner for the order were present.

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Drs. Irwin, Hickerson and myself were requested to make the autopsy. Drs. Irwin and Hickerson made the section. I took notes of the conditions found.

The cadaver was in excellent state of preservation. Corpse sallow, wasted, anæmic, cachetic, dark hue. Cheeks hollow. Post-mortem changes, external, were venous stasis, well-marked over abdomen, especially in right and left iliac regions. Venous stasis also plain on dorsal surface of hands; but little fatty tissue discovered on abdominal section. Peritoneum pale, bloodless and healthy.

The costal cartilages were cut through the sternum, elevated and bent back, exposing pleura, lungs and pericardial sac. A few ounces of dark, bloody serum was seen in posterior portion of thoracic cavity. Pleura healthy; no adhesions, bands or inflammatory thickening. Lungs in situ a pale, mottled grey, perfectly healthy, with slight post-mortem congestion from settling of blood in posterior portion of lung. No tubercles or cavities; perfect vesicular crepitation on pressure.

Pericardium pale pink and healthy; but little fluid in pericardial sac. Ventricles of heart collapsed, and but little blood in auricles. Walls of heart thin, but atrophied only from general wasting of system. Heart cavities healthy. Great omentum pale and healthy, with very little fatty tissue. Spleen dark, slightly congested with venous blood; very slightly enlarged and somewhat friable. Liver normal in size, pale and healthy, with slight post-mortem venous congestion along the free border. Gall-bladder full of healthy bile and in a normal condition. Lesser omentum and intestines natural.

The stomach was found slightly congested and inflamed almost throughout entire extent. The walls were remarkably thin and wasted, the gastric tubules seemingly almost entirely destroyed. A suppurating chronic ulcer was found on the posterior surface of the cardiac extremity of the viscus, extending entirely through the posterior wall of the organ, about an inch and a half immediately below the point of

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entrance of the œsophagus. The œsophagus was inflamed from point of entrance about seven inches above. Pus covered the mucous membrane of the stomach throughout, giving the tissue a greenish-yellow hue. About two tablespoonfuls flowed from the ulcer when the organ was removed.

The right and left suprarenal capsules were found in the condition characterized by Wilks as the third stage of the disease, and which I here append, as more graphic than any words of mine could be:

"At a still later period the whole of the originally formed material may be changed into a yellow substance, and now it is that it presents the ordinary appearance of a mass of yellow tubercle. During this time the whole organ shrinks and becomes reduced to about its original dimensions.

"In many cases a still further change ensues, and the solid material becomes converted into a creamy or pus-like fluid, so that when the capsule is cut through, this may escape, just as in opening an abscess."

Both capsules were in this last stage of the disease, the right more markedly so than the left. As my notes say: "The capsules were found in a condition of pustular degeneration, yellow and semi-liquid in appearance, and entirely degenerated."

Examination of right and left kidneys showed them to be healthy. There was no examination of the bladder, as no disease of that organ was suspected.

The condition found will probably result in an effort on the part of the order to prevent the payment of the insurance. The examining physician refuses to recommend the payment of the insurance, and considerable feeling exists amongst members of the organization concerning it.

A careful research of the literature of the subject fails to reveal any recorded cases of gastric ulcer associated with Addison's disease, or vice versa. Aitkin, Bristowe, Wilks, Pepper and Watson are all silent concerning such a combination of diseases. In Hartshorne, Dr. Austin Flint is quoted as saying, "that degenerative disease of the gastric

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and intestinal tubules is the cause of anæmia, so prominent in this affection. It is unquestionable that gastric disease and ulcer had existed for some months in this case, and it is probable that the ulcer was the immediate cause of death. But no inflammation had been produced in the omentum or surrounding organs by the perforation of the ulcer.

Hartshorne says the "disease is fatal always at last. Average duration about fifteen months. Wilks, that some cases of the disease are as brief as six months, and an average of about one and a-half years will cover the duration of the disease. The mode of death is asthenic; the patient becoming weaker and weaker, diarrhœa sometimes ensuing, sometimes convulsions or coma; sometimes the patient remains in the lowest state of vitality for weeks, and then suddenly dies. Life lingers like a flickering flame, and then suddenly expires.

The larger number of cases of Addison's disease occur in men. The larger number of gastric ulcers in women. Remedies recommended for the former condition are few and not considered to possess much virtue. The favorite prescription of Dr. Greenhow was chloroform, glycerine and iron.

Some facts of an interesting nature may be gleaned from this autopsy: First, the association of Addison's disease with gastric ulcer. Second, the possibility of the cachetic hue when associated with derangement of the stomach being mistaken for cancer. Third, the fact that the asthenia and prostration are not always sufficient to prevent the regular discharge from manual labor. Fourth, the possibility of intercurrent disease obscuring the symptoms connected with Addison's disease. Fifth, the possibility of overlooking a very grave lesion or combination of diseases when insuring an applicant, and lastly, the tendency of individuals to conceal grave and mortal conditions, where pecuniary considerations are involved, when preparing to "shuffle off this mortal coil."

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AN UNUSUAL CASE OF SYPHILIS.

By A. H. Ohmann-Dumesnil, A. M., M. D., of St. Louis.

THE case, whose history I am about to relate, whilst not extraordinary, by any means, is one which deviates considerably from what has been generally accepted as the type in this disease. Moreover, there is a sufficient number of interesting points presented by it to render it worthy of being placed upon record. It may also serve to enlarge our views upon syphilis to a limited degree by the few interesting problems which it presents. The history of the case, in brief, is as follows:

On January 20th, 1886, F. K., 32 years of age, single, a native of Germany, painter by trade, came to see me for a venereal trouble. He stated that two weeks before, January 6th, he observed two "sores" upon his penis. Upon examination, I found two slightly elevated, eroded, superficial ulcers, each about the size of a silver quarter dollar. One was situated upon the integument upon the dorsum penis and the other upon the skin of the ventral portion of the organ. There was no pain connected with these lesions, except when exposed to too much friction from the clothing. The secretion was very scanty and somewhat purulent, although to a very slight degree only. The inguinal ganglia on each side were considerably enlarged, varying in size from a filbert to a half walnut, and somewhat tender to pressure. Upon careful inquiry, which has been repeated from time to time, the fact was elicited that the last time the patient had connection was on November 21st, 1885.

No attempt at treatment was made beyond ordering an iodoform dressing for the ulcers and their protection from friction.

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February 1st, 1886. The patient, having been instructed to return as soon as an eruption should make its appearance, came, and upon examination, disclosed a well-marked roseola distributed over the chest, abdomen, upper portions of the arms and back. He complained also of headache and rheumatic pains. He was ordered an eighth of a grain of bichloride of mercury three times daily, and applications of mercurial ointment twice daily to the chancres and indurated ganglia.

February 9th. He reappeared, complaining of pains throughout the body, but more marked in the bones. There was also anorexia and some fever. Small papules had also made their appearance in the meantime. An eighth grain of bichloride was ordered to be taken five times daily, and locally the application of oleate of mercury, of ten per cent. strength, twice a day. This treatment was continued until the 24th of February, at which time the metallic taste was well developed as well as the fetor of the breath. The eruption had all disappeared and the chancres healed, whilst the ganglia in the groins were almost entirely reduced to their normal size. A rest of about ten days was ordered, during which nothing but external applications were to be made.

March 8th. The patient presented himself, with marked iritis of both eyes. He was ordered an eighth grain of corrosive sublimate four times daily, and sent to Dr. C. Barck to have his eyes attended to. For the latter he was ordered oleate of mercury and belladonna ointment, to be rubbed over the forehead, and atropine solution to be dropped into the eyes.

March 15th. The eyes had not improved. Upon close examination the cause of the iritis was found to lie in seven small tumors, three in one iris and four in the other, each one a little larger than the head of a pin, of a greyish color, and undoubtedly gummata of the iris. In this diagnosis Dr. Barck concurred. Noting the necessity of thorough mercurialization, mercurial inunctions were ordered, and the patient faithfully followed directions.

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March 21st. The eyes were not so painful, the patient saying that they were better. He was told to continue the inunctions and to use about one and a half drachms for each application.

March 24th. The eyes were worse. The photophobia was well-marked, and hypodermic injections of mercury were resolved upon.

March 25th. Six minims of the following were injected:

℞ Hydrargyri bicyanidi 0.22 (gr. 3⅓)
Aq. Destillat. 40.00 (ʒ 10 +)
M. Ft. Sol.

Injections were then given daily, varying in amount from ten to fifteen minims, until, on April 9th, the thirteenth injection had been given. During all this time the mercurial inunctions were kept up.

April 9th. The eyes are much better and the patient says that there is no pain whatever, and that he feels well.

On April 4th, a mild stomatitis had developed, for which a wash containing tincture of myrrh was prescribed, together with the frequent rinsing of the mouth with a weak solution of alum. This he was ordered to continue, and it prevented further manifestations of the action of the mercury upon the mucous membrane of the mouth.

April 13th. The patient reported and examination, revealed the fact that the improvement in the eyes was marked. He was ordered one-eighth grain of corrosive sublimate and about seven and a half grains of iodide of potassium three times daily.

April 26th. The same was ordered continued, with the exception of taking the medicine four times daily, and increasing the dose of iodide of potassium to ten grains.

May 1st. The patient called, and his eyes are practically well. He is ready to go to work, and feels well in every respect.

The points of interest in this case are, in the first place, the fact that the patient contracted two chancres relatively

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so far apart. Then the fact that the inguinal ganglia attained such large dimensions would seem to point to some inflammatory action going on; and, yet, subsequent developments would seem to indicate that their size was due solely to the syphilitic process.

The time of primary incubation, from November 21st, 1885, to January 6th, 1886, is one which is quite lengthy—forty-six days. It is considerably over and above the average, and there can be little probability of the patient having made a mistake, as it was immediately prior to his departure for this country, that he had connection.

The period of secondary incubation, on the other hand, was quite short, being but twenty-five days. The eruption was the ordinary erythematous syphiloderm, which yielded rapidly and easily to ordinary treatment. And yet, in thirty-five days, after a rest of about twelve days, we find gummata developed in the eyes, formations involving the deeper tissues and justly relegated to the evidences of the tertiary form of syphilis.

A curious fact in connection with this, is that the patient has not had any other manifestation of syphilis. After the small papules disappeared there was no more evidence upon the cutaneous surface, and he never had any mucous patches, condylomata, alopecia or other symptoms so commonly observed in the secondary stage.

The great utility of hypodermic treatment was shown in this case. The only inconvenience experienced was in the burning sensation produced by the bicyanide, and which lasted for a couple of hours after each injection. No abscess formed, and no other inconvenience was noted. The injections were all made in the integument around the base of the scapula, the two sides being alternately taken.

In conclusion, I think that I may safely say that this case is an example of a precocious syphilis (*syphilis précoce*), and that it will be well to keep the patient constantly under the influence of the mixed treatment, to guard against the possibility of the occurrence of that disastrous

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form known as cerebral syphilis. The fact that gummata formed so early in the iris is evidence of the tendency which exists in this individual, and the brain is one of the organs of predilection for these deposits.

I have not dwelt at greater length upon the ophthalmic features of the case, as Dr. Barck, who closely observed the patient in this respect, intends publishing a paper on these points, and it will very properly supplement this short clinical report. In pursuing the treatment, the iodide of potassium will be gradually increased until the limit of the patient's toleration is reached, and then he will be kept upon what will be the proper dose for so long a time as the exigencies of the case will seem to demand, the mercurials being steadily continued.

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THE CURABILITY OF EPILEPSY AND EPILEPTOID AFFECTIONS BY GALVANISM AND THE PHOSPHATED AND ARSENIATED BROMIDES.

By C. H. Hughes, M. D., St. Louis, Mo.

THE experience of more than a quarter of a century with this once intractable trouble of the cerebral centers, has confirmed the growing conviction that epilepsia, in its graver, as well as in its multiform milder varieties, is not the *approbrium medicorum* our fathers regarded it. The unfavorable prognostications respecting this disease, universally made, up to the time of and by Elliotson, so late as 1844, and reaffirmed later by Watson and his cotemporaries, up to the time of the introduction of the bromides in its treatment, a little over twenty years ago, that "it is a disease, which, in a large majority of cases, cannot be cured," will not be borne out in the experience of the diligent physician *who keeps his cases well in hand, and under uninterrupted therapeutic control for a sufficient length of time, to enable the irritable psycho-motor area and disordered vaso-motor centers to regain, by prolonged rest, their normal tone.*

The physician who undertakes the treatment of a case of epilepsia, either *petit* or *grand mal*, with the expectation of being able to safely suspend treatment before the expiration of eighteen months, or two years, will, in most cases, have a record of failure for his pains; but the physician who, in the beginning of every case, has the courage to accept his cases only upon condition that they are to be constantly under his observation and treatment for a year and a half, or two years, and who will treat them in accordance with the plan which here follows, will, we confidently believe, have for his reward more successes than failures. At least, such has been the writer's experience, and he confidently commends it to the profession.

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This is not a novice's enthusiastic "great expectations," based upon a few fortuitous results, but the testimony of the steady experience of a professional life, lasting over a quarter of a century, and nearly four-fifths of it spent in the constant study and treatment of epilepsia and its allied neuroses.

Epilepsia is curable only through absolute medical control of the patient for a long time, the removal of all organically depressing influences, and all central nerve excitation and over-tax. In some cases the time of treatment above indicated — eighteen months or two years— is too brief. A much longer period of central nerve tranquilization and reconstruction must be persistently maintained, in order to overcome the conditions upon which the characteristic, explosive paroxysms of nerve force depend.

The expression of paroxysm of an ordinary epilepsia is, in a certain sense, that of a discharging lesion, like the force represented in the tightened spring of a wound-up clock, after the pendulum weight has been removed; the normal inhibitions over irregular discharge are inactive, and the regular volitional display of normal cerebral life passes suddenly into irregular psycho-motor activity or convulsions, and stertorous coma.

But the ever-present and persistently abiding condition, in every case of epileptic or epileptoid convulsion, is a vaso-motor failure and vascular disturbance, whether the remoter cause be a central tumor or a traumatism, a heart failure, or an embolus, a toxic agent, or thermal influence; and this vaso-motor disturbance has its *locos morbi* more often in the cortex than elsewhere, as shown by the early suspended or impaired consciousness, and the incipient, sensory, motor or illusory aura; the quivering eyelid, perverted sense of smell, visual and aural hallucinations; though, by the same interpretation, the initial irritation not unfrequently begins about the bulb, as shown in the early moving lips and acts of automatic deglutition.

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The purpose of this paper is not, however, to discuss the pathology of epilepsia, though the writer, for want of better time and opportunity, would here briefly record his conviction that all true epilepsia and epileptoid is cortical in its origin, and essential *locus morbi*, though the initial irritation may be, in many cases, of peripheral source.

The following formulæ will indicate the writer's outline theraphy in this affection, a combination which he generally employs, varying the doseage according to circumstance of age, idiosyncrasy, etc.:

℞ Potass. bromidie ℥ iss.
Syr. hypophos. co. ℥ iv.
(without strychnia).*
Liq. pots. ars. qlt. lx.
Aq. menth. pipt. q.s.ft. ℥iv.

M. S. Two teaspoonfuls three times a day, till bromism is induced; then two doses daily, for a few days; after that two doses for two days, and three for two days, and so on.

In this combination a bitter tonic may displace some of the peppermint water, if desirable, and a half-ounce of the bromide of sodium or ammoniam may take the place of half an ounce of the potassic bromide; and if syphilis or malaria be complicating influences, iodide of potassium or quinine are given, in addition, in full and adequate doses.

In regard to the employment of galvanism, a mild, constant current, plainly perceptible, but not painful when applied to the cheeks with wet sponge electrodes, should be passed from the forehead (each side, over the eyes) to the back of neck, and from the motor areas of the head to the hands of opposite sides. I use this designation of the current, instead of the more scientific Milleampere, because most physicians who hear me are unaccustomed to the use of the Milleampere meter, and because I consider this a good practical method of doseage measurement for cephalic galvaniz-

* Contrary to the views of McLane Hamilton and others, I consider strychnia contra-indicated in epilepsia.

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ation. The current through the head should always be gentle, and never painful beyond a very slight and tolerable pricking over the superciliary arches at the superficial distributions of the supra orbital nerves.

This is my management, in outline, of these cases. I need not give you a tedious array of successful cases. They will be made a matter of history in a subsequent and more elaborate communication, designed to be read at leisure, and not to be listened to at the expense of precious time which belongs partly to others as well as myself. Many of you, however, have seen my cases return to your communities after a lengthened treatment, and quite a number of them effectually recovered, and all of them greatly benefited by this method.

These results I attribute chiefly to the persistency of the combined medical and galvanic treatment, and the changed habits and surroundings of the patients.

No epileptic can be cured who persists in the use of tobacco, alcohol or other depressing narcotic, or vicious habit, or who does not give up coffee and tea and learn to use milk and a minimum of animal food, or to use tea and coffee only very sparingly, in the forepart of the day only.

He must have secured to him the habit of sleeping abundantly and quietly, avoid all sources of passionate outbursts.

His bowels should be kept uniformly regular on a laxative pill, containing aloin, colocynth and rhubarb extract or blue mass, as indicated at night, with an eighth of a grain of extract of belladonna and a fourth of a grain of extract ofconium.

The indications for the successful management of epilepsia are to put the general and whole glandular system in physiological working order, remove all sources of eccentric nerve irritation, and daily tranquilize and reconstruct the irritable cerebral centers, keeping up the treatment till all tendency to psychical or motor explosion in the cerebral centers disappears, if it takes a lifetime to do it.

The cephalic galvanization should be employed from three to five minutes at least three times a week, with a descending and labile current, until improvement in the cerebral

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nerve tone is accomplished and confirmed. Ordinarily a four to six-cell current from a simple McIntosh battery will suffice.

I consider skillfully employed cephalic galvanization a most essential remedy for the permanent cure of epilepsia, notwithstanding it has been disparaged by those who ought better to understand its use and powers before condemning it. The same is true in my experience with its use in chorea.

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TREATMENT OF PENETRATING GUNSHOT WOUNDS OF THE ABDOMINAL CAVITY, WITH REPORT OF TWO CASES.

By Jos. W. Heddens, M. D., St. Joseph, Mo.

THE best method; in my opinion, in testing penetrating gunshot wounds of the abdominal cavity, is by means of the exploratory incision. My reasons for thinking so, are these: that by this method we are enabled to make a positive diagnosis, to remove all foreign material, to arrest hemorrhage, and to lessen the danger to septicemia. It is not the size of the opening that is of importance. There is very little more danger from a large opening than from a small one. Probably the most important feature in such cases, and certainly the most frequent and certain cause of death, is hemorrhage. It is well known that hemorrhage in the peritoneal cavity is much greater from the wound of a given vessel than from a wound of a similar vessel in other regions, which fact is accounted for by the laxity of the tissue through which the vessel courses, and the absence of atmospheric influences and pressure.

If this is true, when only a small vessel is injured, we can readily understand how, that when a large vessel is injured, the hemorrhage will prove certain and almost immediately fatal. Even if the hemorrhage is not copious enough to prove fatal of itself, it is always sufficient in amount to endanger life by secondary septic decomposition, which cannot be avoided in any other way than by abdominal section. Besides the question of hemorrhage, much more good can often be accomplished, such as removing

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foreign bodies; sewing up wounds, intestines, or a removal of a part, or the entirety of wounded organs.

Certain it is that the cases of recovery by the old or do-nothing plan of treatment, are very rare, when Dr. Otis, in the surgical history of the war says that the authenticated cases of recovery can be counted on the fingers of one hand. While a few cases have recovered without operative interference, this fact is not an argument against it; for by its adoption, little, if anything, is added to the serious nature of the injury, and the wounded parts are put in a much more favorable condition for recovery.

The time at which the operation should be performed is also of importance I do not believe it is the best plan to wait for urgent symptoms to present themselves, but to operate as soon as expedient; for patients thus wounded sometimes die without urgent symptoms, and moreover, risk would certainly be greater after urgent symptoms have arisen.

To illustrate my conviction, I will report briefly the history of two cases which have recently come under my observation, and one of which was treated by the old or expectant, and the other by the new or operative plan.

CASE I.—Some months since I was called in consultation to see a Mr. T., age about thirty (30) years, who had received a pistol-shot wound in the left inguinal region. He had no special symptoms, very little pain or tenderness, no swelling. I was of the opinion that there was hemorrhage in the abdominal cavity, and insisted upon abdominal section, but neither the attending physician or relatives would consent. He was treated on the expectant plan, and on the fifth day, while doing as well apparently as he had been at any time since receiving the wound, he suddenly died, and at the post-mortem examination it was found that the bowel was wounded, although not perforated, and one of the iliac veins perforated. He died from hemorrhage. Had the operative plan been used in this case, I am confident his chances for recovery would have been much better.

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CASE II.—Shortly after this I was called to see a Mr. U., age about thirty (30) years, who had received a pistol-shot wound in the epigastric region.

He complained of great pain in the right side and back, and also in the right shoulder. He also had difficulty in breathing. I was of the opinion also that there was hemorrhage in the abdominal cavity. I explained to him and his relatives the serious nature of the injury, and also explained and urged the operative treatment. Upon consultation with two other surgeons we agreed that this plan of treatment would give the patient the best chance for recovery.

We accordingly opened the abdominal cavity, beginning the incision at the sight of the wound and carrying it downwards five and one half inches. We could trace the source of the bullet to the liver. We removed a piece of his vest from the peritoneal cavity, which had been carried in by the bullet. About four ounces of blood were also removed. The wound was dressed antiseptically, and the patient made an uninterrupted recovery, and has been in good health ever since, weighing now about two hundred pounds.

One object in reporting these cases is to call forth the expression of the members as to the best method of proceeding in such cases. All of the older writers and surgeons, with very few exceptions, advocate the old or expectant plan. While this is yet a comparatively new method of treatment I am confident that it will not be long until it has an established position.

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REPORT OF SPECIAL COMMITTEE ON COLLECTIVE INVESTIGATION OF DISEASE.

By B. F. Hart, M. D., Chairman, Brownsville, Mo.

[Presented to Missouri State Medical Association, St Louis, May 3, 1886.]

As a committee to report on Collective Investigation of Disease, the following is offered on Malarial Fever. Within the last four weeks circulars, asking questions bearing on the subject, have been sent to many counties in the State. Thirty-seven have been responded to by leading physicians residing at county seats.

Counties heard from, on the north side of the Missouri River, are: Ray, Carroll, Chariton, Howard, Audrain, Warren, Linn, Andrew, Adair, Nodaway, Harrison, Putnam, Gentry, Buchanan, Boone, Platte, Clay; and those on the south side are: Saline, Cooper, Cole, St. Louis, Bates, Henry, Pettis, Hickory, Osage, Vernon, Phelps, Washington, Ste. Genevieve, Barton, Laclede, Cape Girardeau, Jasper, Taney, Wayne, Mississippi, making thirty-seven counties, and, a pretty good showing, as will be observed by referring to the fortunate distribution of these counties over the State, and ought to give a tolerably reliable index to the thought on the question in the State.

Twenty-three questions were submitted.

1st. Has malarial fever been very prevalent the past year in your county, more or less, than usual?

To this question twenty-eight respond, less; seven, usual; and two, rather more.

This certainly is a most gratifying report about this wide-spread and often unmanageable, troublesome disease. The response is almost unanimous in favor of decline; and,

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when it is considered that the counties heard from are not only located all over the State, but a good proportion of them represent river bottom counties most subject to malaria, it shows but too plainly the handwriting on the wall for this once dreaded and severe scourge of the State. Many respondents say there has been a gradual decline for several years, and others, representing upland counties, say there is now but little malaria in those sections. The reasons for this decline are most obvious, and are accounted for in the general clearing up of the country, the draining and cultivation of the soil. This has been the history of the disease in all lands, with few exceptions, which may be satisfactorily explained. How and why these things affect the disease so favorably will be considered further along.

2d. What form has prevailed mostly—intermittent or remittent?

Intermittent is mentioned twenty-three times; remittent, ten, and two say they prevail about equally.

Although intermittent is mentioned as having been seen far more frequently, yet many declare that remittent, too, is quite common. Better prophylaxis is, no doubt, the reason why remittent is less common than formerly. Where they prevail about equally, or nearly so, a much larger proportion of remittents are subjected to treatment.

3d. What proportion of pernicious or congestive cases occur in the intermittent and remittent, and have any been hæmaturic?

Sixteen answer, from one to three per cent.; three put it at ten per cent.; two say there has been an increase, three, that they have kept no record, and cannot answer; and eleven declare they have seen no such cases, which, of course, must apply to the past year only. Thirty-five have taken no note of hæmaturic cases; one says they are seen very seldom, and the report from Barton county mentions quite a number, twelve having been seen in five years, four having been hemorrhages from the stomach. This shows very plainly that the hæmaturic form, which prevails so exten-

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sively and so fatally in the extreme Southern States, is almost unknown in Missouri.

4th. Has the congestive stage, in either form, been attended with much fatality?

Thirty-three answer, No, several not having seen any; and four say, Yes; one thinks fifteen per cent. are fatal; another, that death never occurs in first chill, but generally in the third; one declares that such cases are generally fatal.

There can be no question about the favorable effect of modern treatment in congestive cases. With more attention to premonitory symptoms, and better regulated prophylaxis, it is reasonable to suppose most all of these cases could be prevented.

5th. Have malarial fevers shown a greater, or less, tendency to assume malignancy than usual?

Twenty-five counties report less; eight, about the same, and four—Barton, Osage, Taney and Nodaway—a greater tendency in that direction; one says, more malignant this spring than usual; another, that the tendency to bad forms is lessened every year, as the country is more cultivated. It is mentioned, in one case, that, while there is a less disposition to congestive forms, the gravity of such cases is increased.

6th. In latter years has there been an increase or decline in the prevalence of malarial fever?

Responses from thirty-four counties declare that there has been a gradual decline; and three that there has been an increase. Some remark that the decline has been very considerable. In Barton County some localities show a decline, while in others an increase is observed. In Osage County the increase has been going on for several years, and in Nodaway an increase for the present year. If this general decline is not complimentary to the sanitary efforts of the medical profession, it certainly is to the labor and industry of the agriculturist.

7th. During what month or months has it prevailed mostly?

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Thirty-four mention the fall months; two the spring months; and one fails to answer. July is mentioned sometimes, and August very frequently with the fall months. The answers indicate that September gives the largest returns in malarial poisoning. Ten speak of spring cases; say they usually show up in April and May, and are generally the cropping out of malaria received into the system in the fall, and not entirely subdued and eliminated. One speaks of seeing more cases than usual during the months of February and March last. There can be little doubt that all cases seen in spring before the middle of May or first of June, owe their origin to fall reception of malarial germs, since there is not sufficient heat to generate them before that time.

8th. State what proportion of cases change from intermittent to remittent, and the reverse?

Twenty report very little change either way, perhaps from five to ten per cent.; five, that only neglected or mistreated cases change; four have not kept notes and cannot say; and eight, that they have observed no changes. Some say the changes either way are about equal, but a good majority declare there are decidedly more changes from the intermittent to the remittent than the reverse. It is safe to affirm that all changes from the intermittent to the remittent are the result directly of mistreatment or neglect, since, as there is a less amount of poisoning in the first form, the second could not result unless precious time and opportunities were lost. The reverse change is always hailed with pleasure, for it is known then that germ-life is losing its grip and will soon succumb to the combined efforts of nature and medicine. These changes from one to the other, either way, clearly demonstrate that the cause is the same in both, yet the symptoms and many characteristic manifestations are quite dissimilar. It is not difficult to understand how the same cause, through increased intensity in re-inforced germ-life, may in the same way make greater inroads on the system

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and further depress the vital forces, as seen in many of the continued fevers, and also, perhaps, in the so-called typho-malarial fever. The natural forces of the constitution in their primitive and perfect state, before various excesses and many direct violations of the laws of health had vitiated and greatly lowered their standard, were no doubt quite equal to the task of removing these germs through the various emunctories from their unnatural habitat—the human body. In exceptional cases, it may be so, even now. Through such violations, in the course of time the wheels of nature became clogged and unable to perform this healthful office to the fullest extent, and this deficiency was transmitted to succeeding generations, thus giving rise to milder forms of disease. To an increased and intensified condition of the same state of affairs, may not the graver and more serious fevers be attributed? The increased accumulation of spores in the system would naturally tend more and more to vitiate the blood, in which is the life-giving principle, finally, jeopardizing life itself, in continued fevers of a dynamic type. This seems not at all unreasonable.

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9th. In intermittent fever, how many types have you seen, and which one most frequently?

The quotidian, tertian and quartan are mentioned by most of the respondents; the two former by nearly every one; and, without exception, almost, the tertian is said to be, decidedly, more prevalent. A few, however, state that the quotidian is seen most frequently. This showing for Missouri is quite the reverse of what happens in Texas, where it is shown, from military post records, that the quotidian is seen half a dozen times oftener than the tertian. Several speak of seeing double types.

The periodicity in fevers is one of the things not easily explained. Many hypotheses have been offered, but none of them, perhaps, will bear the crucial test of demonstration. The intermissions or remissions of dengue, and relapsing fever, are explainable, probably, in the same way

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as malarial fever, only the factors in each case being different. Seemingly, Obermeirer has shed a little light in this direction, and his observations have been corroborated by several others of high standing in the profession. He states that during the pyrexia of relapsing fever the spirilli —the cause of the disease—are very numerous in the blood, the more so, as the disease is graver, and that during the paroxysm these micro-organisms die, but their spores still live, hatch and develop into full life, producing another paroxysm. This accounts, most satisfactorily, for periodicity in relapsing fever, which, in some cases, have several relapses. What is true in this fever will, doubtless, hold good in all periodical fevers. It is simply the development of germ-life of different varieties, through its various stages to maturity, or until destroyed by the high heat. Heat and germicides, which destroy the full-grown organisms, fail, generally, to affect fatally the spores.

Again, it is seen, in the more developed orders of higher organizations, that perfect life with them is very ephemeral. Dr. McLaughlin, of Austin, Texas, has, very recently, discovered bacteria, in large numbers, in the blood corpuscles of those suffering from dengue fever, and Salisbury and others have long since found palmetic spores in the red corpuscles of malarial fever patients.

While microbes are different in these fevers, it stands to reason they would all be developed on the same plan, some sooner, and some later, according to their life history, as represented throughout nature.

Malarial intermissions and remissions, may result, first, from complete development of the microbes, the different paroxysms being a repetition of the same round of development from spores; or second, the development may receive a set-back, corresponding to the periods from the heat developed in their unnatural surroundings.

In confirmation of this latter view, it may be stated that M. Charles Richet, not long since established beyond a doubt, that heat helps to impede or arrest the

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development of micro-organisms. Experiment showed that at ordinary temperatures they would develop rapidly, whereas, when the temperature was raised to 104° there was no development, the liquid remaining clear and limpid. This being true, it is a question whether the extra heat may not be after all one of nature's conservations.

If not true, at least an original, very ingenious theory of periodicity, was that recently promulgated by Professor Cantani, who affirms that the spleen is the nidus in which the microbes are received and developed. When the capsule of the spleen is yielding, the development is permitted to take place in it, and enlarged spleen is the result; but when it is very contractile and sensitive, the microbes are thrown out into the current of blood periodically, producing paroxysms, the length of time between depending upon the elasticity of the capsule, and the sensitiveness of the organ. This theory finds no difficulty in accounting for all the manifestations of periodicity.

10th. Do you use preparatory treatment in either the intermittent or remittent form of fever?

It is stated by eighteen that they do use more or less preparatory medicines; by eighteen that they do not; and one remains silent. With the present knowledge of the cause and course of the fever, it would seem that a sound and good practice should dictate an immediate warfare, with sledge-hammer blows, against the pestiferous little micro-organism, before it has time to develop.

11th. Mention your treatment in a general way, the amount of quinine given; in what doses, and do you stop at cinchonism?

With every one quinine seems to be the one great sovereign remedy in acute forms. It is generally given in from three to five and ten grain doses every three or four hours, till from twenty to forty grains are administered, or until cinchonism is produced, when it is slackened up or given in lessening doses, or at lengthening intervals. Some give purgatives, at first, of mercurial combination, while

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others combine the same with specific treatment. A few give quinine in ten and twenty grain doses, and in one or two reports it is carried to one drachm, or more, during the interval. Aconite, nitre and citrate of potassa are frequently given during pyrexia. Capsicum and other antiperiodics are often combined with the head remedy. The bromides, opium, alcohol in some shape, nitrite of amyl, chloroform, jaborandi, are mentioned in connection with chill. In the chronic form, iron, arsenic, strychnine and iodine take the lead, and chief reliance is placed thereon.

12th. Have you found anything to take the place of the cinchona alkaloids as an antiperiodic?

The answer is almost universal that nothing has been found. Two or three mention arsenic and iodine as answering very well; salicin, sat. tinct. of black haw, and decoction of cuckleburr are mentioned favorably. It is generally conceded, however, that quinine acts more efficiently, when combined with other articles having a like effect.

According to personal experience, the above views are not particularly out of the way. Of course, there are a great many other articles that meet the case tolerably well; indeed, any remedy with antifermentive properties, is an antiperiodic of greater or less potency, and their name is almost legion. But, considered in the light of the safety and certainty of quinine, it is safe to say no remedy will soon be found to take its place in acute malarial poisoning. The decoction of the rough outside bark of an old sassafras tree has been found to meet some cases even better than quinine, and it is entirely harmless, but often is not obtainable. For the chronic form, the compound solution of iodine, in connection with a laxative pill of aloes, podophyllin and blue mass, semi-occasionally, has been found to meet all the requirements.

13th. How do you meet the indications in congestive cases?

The hypodermic injection of morphia and quinine is the sheet anchor of a good many; others use them *per orem*

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in connection with arterial stimulants and the external use of heat, frictions, hot mustard foot-bath, and wrapping the patient in a blanket wrung out of hot mustard water. Digitalis and jaborandi mixed, is recommended once. The hypodermic injection of ether, atropia, and the arom. spts. ammonia, is recommended. Favorable mention is made of the use internally of chloroform, brandy and tinct. capsicum combined. Two place their faith in venesection, and on it rest their hopes in desperate cases. This practice might have done well enough fifty years ago, but it seems strangely out of joint in the full blaze of knowledge of the present day. By its advocates however, it is claimed to do the work and no mistake, even when other things fail, not only in this condition, but in the cachectic, anemic state, which results from long continued poisoning. The conviction cannot be resisted, that nature must have come to their aid most powerfully in this extremity, otherwise, patients so treated, would exclaim, Farewell, vain world! In the congestive chill stage, nitrite of amyl, by inhalation, is a prime, good remedy, in connection with other recognized treatment to meet this condition.

14th. What is your experience in the use of quinine hypodermically, and by inunction?

Thirteen respondents say they have had good results from inunction in infants; twenty-two not much use in that way, and results not good; from the hypodermic use, nine profess to have been pleased with the good effects; twenty-four say no good, or but little experience; and several claim to have seen abscess, ulceration and sloughing, from its use in this way; and two keep silent. It would seem from the replies that these methods have not been very extensively tried in either of these ways by a majority of those responding. The reason for this doubtless, is, because there is no necessity for it save in very exceptional cases.

It is somewhat inconvenient and troublesome to administer quinine subcutaneously in ordinary practice; besides, there are but few persons to whom quinine cannot be given

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by mouth or rectum, if combined with morphia. In cases of congestion seriously threatening life, or when the alimentary canal shows supreme disgust for the article, the bi-sulphate especially, may be used to great advantage hypodermically. The inunction method, it would seem, is also unnecessary in most cases of infants even; since they, too, can take the malarial antidote in the ordinary way with good and certain effect. As it takes longer to effect the same end by this plan, and as its action is involved in more or less uncertainty, and therefore, liable to jeopardize life, it is believed that this method should be resorted to as seldom as possible; though it must be admitted there are some obstinate and perverse cases, in which its use in this way, is not only admissible, but really demanded.

15th. How do you account for paroxysms commencing usually in day-time?

Nineteen say they do not know; five are silent; and thirteen give various versions of the matter; such as, "eating and exercising in day-time affects the portal circulation which favors it;" "more disturbance of the circulation and temperature;" "greater exposure to depressing agencies;" "heat greater and patients more subject to it;" "solar heat in determining constitutional habit;" "heat's action on miasms, and because the nervous system is not at rest;" "more exposed to atmospheric impressions;" "nervous system not at rest, as in the night; "physical movement and activity favors it, as my experience shows that night-laborers in active exercise, chill as often in the night as in the day;" "free access of air to the cutaneous surface, producing contraction in the capillaries by vaso-motor irritation;" and some other answers to same effect. It is very clear that this question lacks a good deal of being settled.

It is more than probable, that neither one of these answers gives the true solution, though some of them may indicate some of the factors. Since it is known that cryptogamic spores are abroad in the night-time, and not in the day-time, as evidenced in the fact that they are found by

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microscopical search in atmosphere in the night and not in the day, to but little, if any extent; and the further facts, that persons have inhabited the most malarious districts by going to the high lands before sundown to sleep, and not returning until after sunrise; and that seamen, when anchored several hundred yards from shore, spend their daytime on land the most malarious with entire immunity, when under opposite circumstances, in either case, they would have been stricken with disease in its worst form, if not death; it follows, as a reasonable conclusion, that the spores thus accumulated in the blood during the night, may be a prime factor in causing the day paroxysm through their zymotic action; at the same time, the other factors, of activity of mind and body and atmospheric impressions on the surface nerves, should not be lost sight of or ignored.

16th. Do you see much of the intermittent, or any of the remittent, form in the spring?

With one exception, all say Yes, to some extent. Intermittent was much more frequently seen; indeed, only one claims to have seen more remittent. They generally declare that the cases are not primary, but are simply the dregs of fall infection taking on new life, and appear generally in April and May. One county—Osage—claims to have more of the disease in spring than in the fall, which seems remarkably strange. Nearly all speak of not seeing many cases in the spring, and some say remittents in the fall give intermittents in the spring.

17th. In what proportion of cases occur enlargement of the spleen, dropsical effusion and cachexia; also, relapses of intermittent, and best remedies to prevent them?

For enlarged spleen, dropsy and cachexia, all respondents say the proportion is small, not more than from three to eight per cent., and results either from bad treatment, bad management, and improper diet and exposure or neglect, and generally occurs in those who are continually exposed to malarial influences in a concentrated form. Relapses are said to be much more frequent, ranging al

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the way from twenty-five to fifty per cent., owing very much to the kind of treatment to which they have been subjected, as to whether early or late, active or merely a pretence. The remedy to prevent is, to see the case early, and do the work thoroughly, at once. The remedies to meet relapses and the sequellea are, comp. sol. iodine, arsenic, iron, strychnia, bromides, eucalyptus, decoc. outside bark of sassafras, nitric acid, bitter tonics (in various combinations), and, these failing, move the patient to higher and non-malarious land.

18th. What is the average duration of remittent and typho-malarial fevers?

The average of remittent is placed from ten to twelve days; typho-malarial ranges all the way from three to six weeks. It is said that if remittent is improperly treated it may assume a typhoid condition, and run on for several weeks. These views are, no doubt, correct, for the disease is certainly more or less protracted according as to whether it is seen early or late, and subjected to a vigorous, or the opposite treatment. Quite a number oppose the name typho-malarial in no uncertain way.

19th. Is typho-malarial fever a mixed, or is it simply a typhoid condition of malarial fever?

Upon this question several profess to be muddled, and, well they may, since medical literature has been so diverse on the subject during the last few years. Fifteen answer, malarial; eight, mixed; four, typhoid; two, that they see both malarial and typhoid; and two, that it is neither one nor the other, but a distinctive, continued fever, produced by a special cause, and having none of the characteristic lesions peculiar to either of the other fevers. Others fail to say what it is, or that it is a misnomer; others, again, mention it as typhoid, complicated with more or less malarial poisoning.

Typho-malarial is in all probability not a distinct type of disease; but it has served as a good scape-goat to hide ignorance, and bridge over imperfect diagnosis and

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prognosis, when the case was not always clear. It is most likely that the disease, so-called typho-malarial fever, may be an imperfect recognition of either typhoid fever, malarial fever with a dynamic condition, or typhoid fever complicated with more or less malaria in the system. The writer is inclined to agree with the fifteen, and believes that the disease in nearly all cases is caused by malarial poisoning, pure and simple, in systems where vital forces have been previously lowered to such degree as to cause them to be unequal to the task of contending with fair success against an overpowering concentrated poison; and hence, the blood is filled with living, dying, and dead spores, and thoroughly vitiated and more or less disorganized by them, and requires a long time from which to recuperate, showing meanwhile all the marks of a low grade of fever.

20th. Are the continued fevers in the fall of malarial or typhoid causation?

Sixteen answer, malarial; five, typhoid; eight, mixed; two have seen both kinds; and others fail to answer. Some mention typhoid as being complicated with malaria; others, while they speak for malarial fever, say a few cases of typhoid are seen; one says typhoid prevails every few years; one—representing Mississippi county—says typhoid is unknown there.

It may be worthy of note that a good many of those favoring malarial cause, live in river or low counties. For the reasons heretofore given it is believed that most of the continued fevers seen in the fall are of malarial origin.

21st. Does quinine exercise a controlling influence in typho-malarial fever, and arrest it?

Nineteen answer, No; sixteen, Yes; but several qualified, by saying it is a good antidote for the malarial element; others, that it influences by lessening severity, but does not arrest; a few say it is injurious, and one that it will kill where there is cerebro-spinal irritation. By one it is said, that it does not influence or arrest, nor will it have any antipyretic

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effect in large doses; and in fact, that he has found nothing else that does influence the disease; and from that and other considerations, believes it to be a distinct and specific disease without a name, he regarding typho-malarial as a misnomer.

While quinine may not be the best germicide in this disease whatever it may be called, or if, of malarial origin, not used heroically enough to abort in the early stage, and not of so much use when the blood has become vitiated in the latter stage, still, it is believed that a moderate use of the remedy in any event, and under most every circumstance, can not have any other than a good effect.

22d. Has the thermometer been of any practical value to a close observer in fevers? What causes the extra heat?

Thirty-three answer, Yes; three are silent; and one says, No. Most of them think the thermometer has been of very great value, and some say they could not treat a case of fever intelligently without its use. Every one must agree that if a proper estimate be put on the thermometer, it cannot be otherwise than useful. The question should have been a little different; whether too much value may not be attached to the thermometer, to the neglect or oversight of other more valuable considerations? That this is the case with many physicians, seems highly probable.

In latter years, due to the thermometer more than anything else, antipyresis has come prominently to the forefront, and threatens to override and leave in the back ground ever other plan of treatment, just as venesection and calomel led the van in the days long since gone by. It is well to make a halt in this direction, and consider whether there are not other attentions to the patient of more importance than reducing temperature, since high temperature very rarely kills (a patient in London, a few years ago, having maintained a temperature of 125° for three weeks or more), while the cause and its disorganizing

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effect very frequently does, or leaves the patient a mere wreck of former self. With high respect for the opinion of others, it is honestly maintained that this antipyretic notion is being carried to a great extreme.

Not a great while since Professor Nothnagel, of European fame, ventilated this question quite freely before a Vienna audience of physicians, and took strong grounds against this prevailing tendency in medicine. He points to the fact that fever is often to be regarded as a salutary condition—in fact, one of nature's regulative processes; and that it is not probable that acute diseases are ever shortened by simply diminishing the temperature. Recently, at the German Medical Congress, held at Wiesbaden, like views were declared by many of the most eminent Germans. They argued that there are many complications which are equally, or even more, prejudicial to the patient's safety than hyperpyrexia, which really is the cause of very few deaths; whereas, the anatomical changes incident to disease itself, or secondary complications not immediately dependent upon the primary cause of the disease, does the business for too nearly all patients who succumb.

When it is remembered that these views find utterance through the leading medical men, of a country which may fairly claim the paternity of antipyretic treatment, it is quite significant, and ought to cause serious reflection on the subject. This is wherein the thermometer may be detrimental, for as there is ordinarily a good deal of routineism in practice, the minds of a great many practitioners, and patients as well, are directed too much by the continual use of the thermometer, to this particular phase of disease, and overlook more important manifestations. In this way, it is liable to be a stumbling block to many physicians, who only look at disease as they see it manifested through heat. Many older physicians can remember the time when they treated fevers as successfully as now with no other gauger of heat than the educated eye and hand; and could tell to a fraction just about what it meant, and that without

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detracting attention from other signs of equal, if not of greater importance.

The cause of the extra heat in malarial fever, seems to be not well understood. Sixteen respondents say they do not know; six are silent, and fourteen answer, as follows: Five say, "vaso-motor disturbance;" four attribute it to "tissue waste;" three, to "abundance of malarial germs, or ferment in the blood;" one, to "excitation of organs to oppose and expel the poison," and one to "increased combustion and nervous excitation."

The three who hold to the cause of a ferment in the blood, are believed to be on the right track. The development of germ-life in certain media gives rise to fermentive action; this is what, probably, takes place in the blood, in this fever. All reasoning on the subject, analogical and otherwise, leads to this conclusion. The ablest scientists and microscopists, in this and other countries, have found plenty of germs in the blood, and have witnessed the destruction of their work therein. It can be shown that all antiperiodics are antiferments, as well; and those that have proven to be the best antiferments, are, likewise, the best antiperiodics. But fermentation generates heat, and that is exactly what happens when palmelic spores are developed in the blood, which is to them an unnatural environment. Everyone is familiar with the generation of heat by fermentive action in the manure heap. Under certain circumstances fermentation has been supposed to originate fire. It is now known very well that the fermentive action of the yeast-plant is nothing more nor less than the development of that plant in its appropriate medium. In dead subjects of yellow fever, the heat has been known to run up as high as 113°, three hours after death, when it was only 104° as life passed from the body. Except on the fermentive theory, there is no other way of explaining satisfactorily this phenomenon. In this case, there were no heat centers, or vaso-motor nerves, to regulate heat; and the brain, as remarkable as it may seem,

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was cooler, by many degrees, than any other portion of the body.

If life can be maintained, for several weeks, at a temperature of 125°, as has been mentioned of the case reported some twelve years ago, from London, it is not worth while to be frightened out of one's wits at a rise of one or two degrees above normal. Neither heat of 110°, nor of 90, will develop the chick in the egg, one being too high, the other too low. It also takes a certain temperature to develop the spores of germ-life; and when the heat due to the growth of germ-life in fever, reaches 104° development, for the time-being, in all probability, comes to a standstill. Thus, it appears, that the confined heat, given out in this way, may, indeed, be a means of checking spore development, and, consequently, conservative, rather than otherwise, as strange and paradoxical as it may at first seem. Some modern theorists about the extra heat think it may be due to paralysis of the nervous heat centers, thus letting loose the metabolic processes, which are much increased, as shown in the extra carbonic acid gas, and urea excreted, and as the result, a rise of temperature resulting therefrom.

Dr. Ord, of London, in his presidential address to the Medical Society, gives a view of the subject altogether new and rather plausible. He says it is admitted that in the building up of complex tissues from simpler food products, a certain amount of heat is rendered latent. During febrile disturbance this complex building up process ceases, and consequently there is a large amount of heat liberated, which goes to increase the ordinary heat set free in disintegration of tissues. Some experiments made by him on plant-life, show that heat is thus affected in the building up and disintegrating process. If the fermentive theory were not more plausible and satisfactory in explaining hyperpyrexia, the one just mentioned would be worthy of consideration.

23d. What is your notion about the cause of malarial

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fever, and have you made any special investigations or observations in that direction?

Seventeen say they do not know; eight fail to answer; and twelve attempt to solve the problem in various ways. Quite a number attribute it to the old worn-out theory of "heat, moisture and vegetable decomposition;" others to "thermal and atmospheric changes;" some to a "specific effect of a poison generated outside the body;" and others to "germ-life in the system." Only two claim to have made any observations. One says the disease is more common when there are frequent morning fogs; another says the common expression of the people living along water-courses is, "above fog-line—above fever-line."

It seems a little strange that anyone, in this day of investigation, should be unable to point out the true cause of malarial fever. Progress has always been impeded by those who are indisposed to accept any new thing on its intrinsic merits; and such will, doubtless, be the case to the end of time.

Instead of the cause being connected with vegetable decomposition, it is connected directly with the life and growth of cryptogamic forms. Many investigations have been made, with a view of settling this question, in the past few years, more especially in this country and Italy.

Twenty-two years ago, Dr. Salisbury, of Ohio, an eminent physician and first-class microscopist, gave to the profession the facts of his investigations in this direction. For several years, and in several States, he had given his time and attention to the study of microscopic plants, and their spores or germinal principle. He promulgated, then, that he had discovered the true cause in the spore of palmula, one of the lowest orders of vegetation, and, but recently, reaffirms the same thing in his prize essay, awarded by the Albany Medical College Alumni Association. His views have been corroborated by others in this country, and very similar revelations have been made in various parts of the world. Dr. Cutter, of this country,

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has made extensive experiments, and confirms what Salisbury has said. Prof. Reinsch, of France, who has had large experience in this way, analysed the earth with gemiasma plants on it, sent to him by Dr. Cutter, and makes a confirmatory report. Klebs, Tommasi-Crudeli, Lavarau, Richard, Cuboni, Marchiafava, and others of standing in foreign countries, have found similar micro-organisms in the blood and secretions of patients suffering from malarial fever in those countries, to which they attribute the fever. True, the organisms found by Tommasi-Crudeli, do not appear to be exactly the same as the gemiasma of Salisbury, but that is no disproof of the latter's assertion, for the cause may be different in the two countries. Certain it is that, in many respects the resemblance of the fevers in the two countries is not altogether striking. Malarial fevers about Rome appear to be much more malignant than they are in this country. Salisbury admits that there are several varieties of the gemiasma which produce fever; some of them producing milder types than others.

The cryptogam, discovered by Dr. Salisbury, is found growing in damp, peaty or boggy soil, and sometimes in soil recently unearthed that is adapted to its wants; and, like other plants, luxuriates and is most prolific where circumstances most favor its development. Wherever it was found growing, malarial fever was found hard by, if the locality was inhabited; and this observation was always the same, whether in Ohio, Kentucky, Indiana, Tennessee or elsewhere. On the other hand, where there was no trace of this plant to be found, a case of malarial fever was never discovered, unless caused by a previous visit to a malarious district. The spores rise mostly during the night-time, with the heavy, damp vapors, to a height of from thirty-five to one hundred feet, and rest on a level with the fog strata, being more numerous as that altitude is approached. The vapors being dissipated by the morning sun, the spores settle back to the earth, which corresponds to the observation that

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people living in such districts are much more exempt when remaining indoors till after the sun has risen; and the further fact, that persons living in the second story, just above the fog-line, are exempt, while those below, on the first floor, are continually sick. It is during the night and early morning that the spores are taken into the blood through the lungs. During these investigations, running through several years, the fever was found in several localities where it had never been known to prevail before, and was altogether unaccountable till explained by the growth, in the immediate vicinity, of this cryptogam, it being brought into existence in every instance by circumstances favoring its growth, such as the drying up of pools and ponds, in the damp, peaty mud of which the plant finds acceptable conditions for its home; in other cases the soil adapted to its growth had been exposed in ditching, making canals, or other excavations in the way of improvement; and again, by the deposit of such earth in the immediate vicinity of those suffering the consequences. In every instance, without a solitary exception, the palmula, with its attending circumstances as noted above, were in immediate proximity.

To demonstrate still stronger this truth and make assurance doubly sure, the earth on which the plant was growing was put in tin boxes and carried to high, healthy land, far removed from malaria, and where it had never prevailed, and placed on the window sill of the sleeping apartment of healthy young men, and the consequence was, in a few days, malarial fever. Various repetitions on different subjects resulted in the same way. In no case were the spores ever found in the secretions of those who had not been exposed to malarial influences; but in those suffering from the disease, spores were always found in the blood, urine, sputa and sweat; just the same spores identically that were always collected on the under surface of a glass plate suspended a few inches during the night-time over the earth upon which the gemiasma cryptogam was growing. Does it not appear that proof sufficient has been

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adduced to point out clearly and unmistakably the true cause of malarial fever? And it must be recollected in this connection, that this is no theorizing, but dealing simply with hard, stubborn facts.

To prove that these spores act zymotically in the blood, the following is submitted: Reasoning from analogy and the well-known action of medical agents which bring relief to patients suffering from malarial poisoning, the conclusion seems to be inevitable that a zymosis or fermentive state is established in the body, producing the symptoms denominated malarial fever, the sweating stage of which is a powerful, though generally futile, effort of nature to rid itself of the poison. The condition of the blood, as shown by examination in health and disease, proves this to be the case. Fresh-drawn, healthy blood, will not cause sugar, urea, amygdalin, nor asparagine to ferment; but, if exposed from six to fifteen days, all will ferment, except amygdalin—no length of time will produce a change in it. Opposed to this, blood drawn from the vein of a person sick with a zymotic disease, induces fermentation in every one of these articles in a few hours, clearly showing that the fermentive state must have existed in the blood while yet in course of circulation. The poison in the blood evidently acts as the fermentive element in these cases. Experiments made by Prof. Polli and others, prove that the blood does thus act in health and disease. The process of leavening or fermentation, as is well known, is but the increase, by multiplication, of the vegetable leaven or ferment in an element suited to its growth, the chemical changes produced being in some way connected with its secretions. But, fermentive plants are unlike, and, hence, produce acetic, vinous, lactic fermentations; so, the causes being unlike zymotic affections of typhoid fevers, measles, small-pox, intermittent fever, and the whole class follow, as a necessary consequence. A small particle of yeast, in a manner at first quite imperceptible, gradually, by multiplication, affects the

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whole mass. So, the incubative stage of certain diseases, quite unnoticed at first, gradually multiplies; the cause becoming constantly more impressive, till, finally, there is open rebellion of the vital forces in what are called the zymotic diseases.

For example, look at the result of inoculation of the merest particle of small-pox virus; of the introduction of a few trichina spiralis into the stomach; of the effects, after incubation, of the merest speck of hydrophobic virus; and, to make it plainer, the full-blown case of itch, by multiplication, from one insignificant acarus; the latter, however, not producing a zymosis, because its field of operation is in an external and comparatively unimportant organ; besides, the morbid action is plain to be seen, and is soon arrested by an anti-zymotic medicine. *Think of it.* Was there ever analogy so striking?

To further prove that malarial fever is without doubt the result of fermentive action of palmulic spores, or in other words, their multiplication in the system, it could be shown in detail, did time and space permit, that all articles which have arrested the fever are recognized antiferments, possessing in various degrees this property. It is an admitted fact, that in all cases not of long standing, quinine will arrest the fever; but quinine will also arrest fermentation, and that most effectively. Prof. Binz, of Bonn, has tested this property of quinine in a great many instances and concludes in this language: "That quinine has the power of arresting the process of putrefaction and fermentation in a high degree, and that it is active poison for all low organisms, animal and vegetable." Quinine, then, cures malarial fever by arresting the fermentive action of the spores, and causing, perhaps, partial destruction of the same, thereby enabling the system, through its eliminative functions, to remove the cause, when health returns, sooner or later, depending on the amount of damage sustained by the cause. Is not this plain, common sense, philosophical reasoning from cause to effect?

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On the same principle quinine acts as a prophylactic, and preserves the body, when administered, from harm in a malarious district. Again, is not arsenic one of the best antiperiodics? Yet, is not it, also, a prime antiseptic or antiferment? What say Emi and other chemists: "That under the microscope the rapid stoppage of the vitality of the yeast-plant is observed when arsenic is added to the fermenting liquor." The sulphites and hypo-sulphites of soda, potassa, lime and magnesia, cure malarial fever. Prof. Polli, of Milan, has used them for that purpose for many years. But are not the sulphites, acting through the sulphurous acid in them, the very best antiseptics or antiferments known? So say Polli, Robinson, and a host of other investigators. In the language of Prof. Polli, the "sulphites possess, in a supreme degree, the power of arresting all known organic fermentations and putrefaction, metamorphosis of animal and vegetable solids and liquids."

The comp. sol. of iodine has proven to be an excellent antiperiodic, relieving many cases where quinine had failed. But iodine, also, is found to be one of the very best antiferments or disinfectants. So says the distinguished Dr. Richardson of London. Carbolic acid, too, has been used with much success in the treatment of malarial fever, so reports Dr. Freulich and others. The destructive action of carbolic acid in fermentive and putrefactive processes is too well known to require more than a mention. Chloride of sodium cures the majority of cases. Its antiseptic properties are familiar to all; it is destructive, too, to lower orders of life, and doubtless performs no insignificant part in preserving the body continually from disease. The iron preparations, are good antiperiodics; but are not some of them disinfectants in a high degree? Picric acid and its salts arrest and cure intermittent fever; but they, too, are antiferments. Nitric acid, cayenne pepper, pepperin, alcohol, salicin, salicylic acid, have all made some good cures; but are not they, too, like all the rest, antiseptic, and destructive to lower organizations? And it may be safely affirmed that

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no curative agent in malarial fever has, or ever will be found that does not possess antiseptic properties to a greater or less degree; for it is through this property alone that the cause can be reached. Antiferments, antiseptics and disinfectants, are terms used to convey the same thought—destruction to and protection from infusorial and cryptogamic life.

An effort has been made, at some length, to prove to a demonstration, three propositions: First, that the cause of malarial fever is, in truth, the spores or bacteria of palmula cryptogam; second, that they act as ferments, which is shown by blood in disease, by analogy, and by the known antifermentive properties of all medicines that afford relief; third, that the disease can be arrested, and restoration to health effected, through none other than antiseptic remedies. And the result has been to deepen and strengthen the conviction of the truth of these propositions.

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REPORT OF THE SUB-COMMITTEE ON FORENSIC MEDICINE.

By H. Christopher, M. D., Chairman, St. Joseph, Mo.

MEDICINE has connection with law only as it respects testimony. The facts with which legal medicine deals are medical facts—facts which only the medical mind can see and judge of. The opinions which the medical man expresses on the witness-stand are based on medical facts, and deduced from the principles of his science. Those facts which the common mind can see can be determined by the common mind, but, so far as the same facts have a significance and importance in a medico-legal inquiry, they must come under the judgment of the medical mind. When, therefore, a physician or surgeon is placed on the witness-stand in a court of justice, he is called thither for the purpose of giving testimony as an expert, on the significance of some medical or surgical fact, and his testimony is oftentimes of such importance or character that the issue of the case hangs on his judgment of the facts.

The range of subjects which questions of this kind embrace, extends over the whole field of medical science, and, in some cases, trenches upon the domain of others, as mental philosophy, in cases of insanity. Here are called into requisition the highest powers and qualities of the human intellect, as well as a familiar knowledge of the matter in question, for, not only must the medical man be able to recognize the medical facts of a case, but he must have a sufficient acquaintance with the principles of his science, with physiological and pathological phenomena, as to be able to make the significance of the proven facts apparent to minds wholly unskilled in such matters. The facts in the case in which he gives testimony, are already

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before the jury when he is called, and his judgment is asked concerning their significance, and, in some instances, whether what appears in evidence is really fact. A child, for instance, is born, but the question is not that, but whether it was dead or alive when born. The evidence for this is wholly medical, and only a medical man is competent to testify in the case. For the determination of a fact no more is seldom required than the possession of the senses unimpaired, but there are cases of judicial inquiry, where special knowledge is required to determine the fact in question, as when an abortion has been charged and denied. There are facts which only the skilled mind can perceive. The common mind can perceive the phenomena of what is charged as insanity, but only the skilled mind can determine whether they are pathognomonic, or simply indicative of a disordered mind. The testimony of the skilled mind is expert testimony, and the law "invokes it to explain the relations of cause and effect in certain physical facts that are in evidence before the court, and, which relations being established to the jury, require professional explanation at his hands, in order that due weight may be given to the facts out of which they arise."—(Ordronaux, p. 120).

But who is an expert? On this subject authorities differ; but evidently common sense would suggest that only he who has a special knowledge of, or acquaintance with, the subject matter on which an expert judgment is asked. This is so evident that it seems strange that any other view could ever have been entertained. What meaning are we to attach to the word "expert," if we are to apply it to anyone who may be registered as a physician? The fact that one is a physician is not a sufficient reason for regarding him as an expert in any department of medicine. So wide and varied is the field of medicine that one individual can hardly be regarded as an expert in any and all its departments. One individual is not capable of all knowledge in any branch of science. "*Non omnes omnia possumus.*"

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Man's finite powers necessarily limit his acquisition of knowledge. Expert knowledge must, therefore, be limited knowledge, and limited to some special branch of knowledge. So, if one is to be regarded as an expert in any particular branch of science, he must have a special knowledge of that branch. This is true, whether the branch embraces one or several subdivisions. Since, therefore, we are not capable of all knowledge, expert knowledge must, necessarily, be limited. The general practitioner is not so competent, *cæteris paribus*, as one specially versed in a particular branch. This is not only a dictate of common sense, but is really the judgment of the law. Hence, "it is wrong to assume, in relation to any one of the physical sciences, that, because a man has been a practitioner in it, he is equally competent and skillful in all its departments. * * * Yet in correlated departments of science, as in medicine, for example, the special skill of the expert may so overlap a co-ordinate branch as to authorize him to speak *ex-cathedra* upon it." [Ordronaux pp. 133–4]. Truth from different departments oftentimes so dovetails that knowledge in one is necessarily attended by knowledge in the other, as in the case of surgery, which implies and necessitates a knowledge of general therapeutics. Still it is true, and must be evident to all, that competency is to be measured by, and to be most expected from, those, "who have a special knowledge of a particular branch of science." This is true as respects all departments of human knowledge, and particularly so as respects medicine, where familiarity with facts and phenomena is essential to the formation of a correct judgment, and necessary to one being considered an expert. The practitioner of medicine in the line of general therapeutics, and who sees or deals but little with surgical cases cannot reasonably be expected to give an opinion in a purely surgical case. He cannot be regarded as "having special knowledge of this particular department" of medicine, and hence, cannot be considered as capable of giving expert testimony in such cases. But since surgical diseases

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require therapeutic treatment during some period of their management, the surgeon is under the necessity of keeping himself familiar with therapeutic measures.

These things being true respecting the two great divisions of medical science, we have but to look closely into the subdivisions of these to be satisfied that the same principles apply to the smaller as to the larger. These two great departments have become so enlarged that subdivisions have become an imperative necessity. Regions of the body have determined the limit of practice rather than certain classes of diseases. Diseases classed according to localities have the great divisions of medicine again blended, so that the practitioner whose work is so limited must be competent to manage both the therapeutical and surgical parts of his work. In such cases the whole attention is concentrated upon a limited area; and it is but the dictate of common sense, supported by universal experience, to suppose that one thus engaged has a more special knowledge of that department, and hence is more competent to express an expert judgment than one not thus engaged. Experience begets skill, enlarges the stock of knowledge, and these qualities secure him abundant work; so that experience and knowledge are constantly increased, and the practitioner rendered more and more competent. Such a one is competent to give an intelligent judgment; such a one is an expert, if any such there be.

It is too much to expect that any one can have skilled knowledge in all the departments of medicine; as a fact, no one has; nor can the general practitioner become qualified to give an opinion worthy of confidence—worthy of the term *expert*, by simply reading up on a subject with which he has but little, if any familiarity. It is the experience of every physician that, in matters of this kind, books alone cannot qualify one for doing more than to relate the opinions of others, if he has no knowledge from experience and observation. When the law asks the opinion of a medical man, it wants his knowledge, not that of another.

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If he has not the knowledge of experience, coupled with what he may obtain from others, what he may say is not his testimony, and hence not that which the court seeks. Legal authorities declare that "any witness offered as an expert, who cannot establish the fact of special skill in the particular department which he is called upon to illuminate, will be rejected." His skill implies personal experience; and he who has simply read up on the particular department, cannot be considered an expert within the meaning of the law.

While law is particular to prescribe, or, at least, to indicate, the essential prerequisites of expert testimony, its administrators are not equally particular in enforcing its requirements. They are not sufficiently careful to procure experts properly entitled to be so called. Indeed, we may reasonably question their ability to do so. Even the legal counsel for the State cannot be regarded as possessing the necessary knowledge of the skill of medical men, or of the range and nature of the testimony to be had from such, that will enable him to make a judicious selection. Here the practice of the courts is loose, and too much is allowed the privileges of the State's counsel, or too much is required of him. Judging on general principles, it certainly seems reasonable to suppose that the court ought to require those whose duty it is, to select only such as are known, or are reasonably supposed to, possess the knowledge sought and desired. It should do this in the interests of law and of justice, and under the inspiration of the love of truth and right.

But more than this ought to be done in the administration of justice, keeping ever in view the supreme purpose of law and its administration—viz., that justice shall be done to all concerned, further provision should be made in regard to expert testimony, in order that the law's aim may be the more certainly and surely attained. As the law does not regard *every* physician as having all knowledge, nor does the court or any one else; and as it directs that only those who have "special knowledge in a particular branch

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of science" shall be accepted as experts, when the case in issue shall pertain to some particular department, it should be so far consistent in its provisions as to observe the well established principle expressed in the chosen phrase of its expounders—"*non omnes omnia possumus,*" and ordain measures that will more certainly secure the ends of justice. While it requires so much of the medical man, it should not require less of the lawyer. If it regards the former as not capable of all knowledge, it should so regard the latter, and not, as it does in fact, consider him competent to conduct the medical as well as the legal side of a medico-legal inquiry. If one must have a "special knowledge in a particular department of science," and especially of that to which the testimony required pertains, in order that he may *answer* questions intelligently and authoritatively, then is this special knowledge equally necessary to him who *asks* the questions. And further, if the special knowledge is to be considered as attainable only by an actual experience in that branch of knowledge, then is it also unquestionable that the counsel for the State is incompetent to ask the necessary questions. Since he has not the personal experience and knowledge of such matters as come within the scope of a medico-legal inquiry. The general practitioner is more competent than he, and yet the law pronounces such a physician unskilled, because he does not claim to have "special knowledge" of the matter which is the subject of the legal inquiry. Lawyers may have an intuitive perception of the nature and drift of facts that lie wholly beyond and outside their usual field of thought and investigation, and a clear insight into principles as recondite to their accustomed modes of thought as are the abstruse subjects of metaphysics; but the common medical mind must depend on a laborious and extensive experience before its acquisitions can be ranked as skilled knowledge. But facts are wanting to establish such superiority of mind on the part of the lawyer. Every medical man knows, and every lawyer must be conscious of the fact, that the latter has not

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the necessary knowledge of scarcely any medical subject, and cannot attain such knowledge by simply reading up on it, to conduct intelligently and skillfully the examination of a physician who appears on the witness-stand as an expert. To think otherwise is to suppose that a lawyer can do what is denied of the general practitioner.

If, then, the law aims at justice, and the court honestly and sincerely seeks this in its administration of it, evident is it that a competent physician should be associated with the legal counsel in every case of a medico-legal investigation, whose province and duty it should be, as a sworn officer of the court, to select the expert, and aid the legal counsel in conducting his examination, by suggesting to him such questions as will elicit the information desired. It is a matter of the first importance that a physician shall be selected who shall meet the requirements of the law, and every physician knows that none but a physician is competent to make such selection. Then, when the expert is on the stand, there is no one so capable of conducting his examination as one to whom all such matters are familiar. Oftentimes has valuable testimony not been elicited because the legal counsel knew not what questions to ask. This is not a matter of surprise, because all he knows of the matter in hand he has picked up at the moment from his "reading up." On the other hand, the physician brings to this work his general and special knowledge, besides the special preparation he makes for the particular case in hand.

These things being very evident to your committee, it would suggest, in conclusion, that the Association adopt something like the following resolution, as expressive of its views in the premises:

Resolved, That it is the sense of this Medical Association that it would subserve the aims of justice and be wise and proper for the State to provide that, in all medico-legal investigations, a physician, having special knowledge of that branch of medicine which embraces the inquiry to be had, shall be associated with the counsel for the State.

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REPORT OF STATE BOARD OF HEALTH.

By Geo. Homan, M. D., Chairman, St. Louis, Mo.

Mr. President and Gentlemen:—In view of the fact that it is largely due to the action taken by your Honorable body, at its last meeting, that the State Board of Health has a present existence, and, in recognition of the power possessed by you to widely influence public sentiment throughout the State on measures and toward objects that commend themselves to your favorable consideration and regard, the undersigned, a Committee of the State Board of Health, were appointed by that body, at a meeting, held in this city, on the 12th ult., to appear before you, with instructions to make such statements or explanations in regard to the policy pursued by the Board, its purposes, plans, etc., as to them might seem necessary and proper, provided it was your pleasure to accord them a hearing for such purpose.

As is well known, probably, to most of those now present, this Board entered upon its work last July, under adverse and trying circumstances, which have continued to the present time, although the Chief Executive and other State officials have done all in their power to aid the Board in the performance of its appointed work, under the law. Not one dollar of appropriated money, however, has been available to its use, and, of necessity, its operations have been curtailed and sadly hampered, and full opportunity to display its value denied.

Its chief aims have been to be useful to the public by seeking to better the condition of general health among the people, to give additional and needed impetus to medical education, and to raise and make permanently higher the

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plane of right-thinking and right-doing among the medical men of this State.

An object earnestly sought has been to deserve the respect and gain the favorable regard of all good men both in and out of the profession; to conquer prejudice and allay ill-fellings, if any exist, by a fair, uniform, conservative course, favoring no one at the expense of another, seeking constantly the greatest good to the greatest number, aiming to overcome and live down evil by patient pursuance of what are conscientiously believed to be right methods and enlightened purposes, and hoping finally to show, even in the midst of unfavorable circumstances, that there is need, on the part of both the public and the profession, for a body such as this may, with proper encouragement and support, some day happily become.

To make clear the position taken and course pursued toward the medical profession in regard to registration it is necessary to say, that after duly weighing the matter at the outset, it was decided to restrict registration to graduates, the diplomas accepted to be from colleges of known good standing in their respective schools of medicine, the candidate to comply with the conditions laid down in regard to furnishing credible testimony of good professional character, etc.

In reference to those non-graduated practitioners who were, by years of practice, exempted from the operation of the law, the Board exercised its option and declined registration, believing this course to be in the best interest of the public good and the medical profession, while working no harm or prejudice to the applicant.

It is under consideration now to extend registration under the circumstances named, if the applicant will present evidence of recent attendance upon a course of instruction at a Post-Graduate or other recognized school of medicine.

An expression of opinion from your body upon the points stated is invited.

The good standing of a medical school s measured by

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the degree of compliance shown to the schedule of minimum requirements prescribed for the guidance of colleges by the Illinois State Board of Health and adhered to by the board of your own State.

An addition proposed to the existing schedule by this board, is the condition that a percentage of graduates to matriculates in excess of forty-five (45) in any school, shall be held as affording just ground for suspicion; and that the Board reserves the right, before according recognition to such a school, to ask of the faculty an explanation of the reason of the existing excess.

As the members of your Honorable body are all more or less directly interested in the cause or work of medical education an expression of opinion is asked for on this subject also.

It may not be out of place, perhaps, to call your attention to the fact that the State Board of Health is not charged with the duty of enforcing the law in regard to medical registration, or of securing the punishment of its violators.

Under the opinion of the Attorney-General, as rendered to the board last winter, this duty devolves upon county officials, the proper and regular mode of procedure in cases of violation of the law, as advised by him, being by indictment by the Grand Jury.

Time is required for the the growth of a healthy public sentiment in this direction, but much may be done by the earnest efforts of each member in his own county.

Something has already been accomplished for the protection of the public, and of reputable physicians, but much more is necessary, and it is respectfully suggested that this matter have a share in your deliberations.

The returns of births and deaths in many counties are believed to be extremely incomplete, and should have some attention at your hands.

The effort to establish on a sure foundation a State Vaccine Laboratory at Columbia, in connection with the

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Agricultural College, for the propagation of bovine virus under the most pains-taking care, to insure an absolutely pure and good quality of product, for the use of the public and medical profession, has received the earnest support of this Board. It is not unlikely that the full benefit of the enterprise will be realized in the course of a few months.

Various committees of the Board are at work, although under trying disadvantages, in the endeavor to collect and put in concise form facts and information in regard to diseases among live stock in this State; the influential causes of endemic or local epidemic diseases; the sources, quality, etc., of public water supplies; the sanitary care of railway and river transportation lines; domestic and general sanitation in villages and country homes; the condition of jails, poor-houses, asylums, etc., and the condition of the school population and of school-houses, premises, etc.

In conclusion, while in some respects it is the day of small things with the Board, still that day may be materially abridged and lightened, by your influence and coöperation, in giving proper shape and direction to public thought and action; and if the purposes, as herein imperfectly set forth, can gain your commendation and support, it will be a powerful incentive to continued endeavor on our part. And, if the time should come, when the material support of the State is freely extended, still this Board will feel that they have fallen short of the right aim and purpose if their course shall fail to command the approval, the active sympathy and moral support of a body so representative and influential for good as your own now is, and promises yet more to become.

All of which is respectfully submitted.

GEO. HOMAN, M. D.
G. A. GOBEN, M. D. } *Committee.*
J. D. GRIFFITH, M. D.

St. Louis, May 3, 1886.

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REPORT OF COMMITTEE ON STATE MEDICINE.

By D. H. Shields, Chairman, M. D., Hannibal, Mo.

Mr. President and Gentlemen:—Having been honored with the chairmanship of the Committee on State Medicine, I beg leave to present you the following paper for your consideration:

The subject of State Medicine is one of such magnitude that it is difficult to discuss its merits in a short paper.

The great object of the founders of our republic was, that all men should be allowed, or rather granted, "life, liberty, and pursuit of happinness;" but, in enjoying any or all of these, there is necessarily, a great many laws to be thrown around and about them. Under the broad principle that the many must not be sacrificed for the few, and the truest form of independence is that which protects and makes happy the greatest numbers, have sprung up a great many statutory laws that would look as if the liberty guaranteed by the Constitution was greatly abridged, if not annulled; and among these laws the most extreme are those that would be considered under the head of State Medicine.

Since the earliest times, when certain diseases were discovered to be communicable, either directly or indirectly, there have been established certain laws known as quarantine laws, of greater or less stringency. Where we find contagious disease the most frequent there we find such laws the most stringent; for the people are quick to protect themselves from injury, either real or imaginary. Our quarantine law, for this reason, has become popular, and we might add that it is the only law pertaining to State

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Medicine that has become so. But even these laws are unpopular in communities where they are little needed. Should you try to enforce the quarantine laws of Louisiana in some of the thinly settled districts of our own State we would find public opinion up in arms against it. While, if the law is not enforced in New Orleans, the people are just as aggressive the other way. When a community has once been subjected to the ravages of any virulent communicable disease we find their respect for quarantine law greatly enhanced. For this reason we find quarantine law at the head in State Medicine. The people have been educated to believe that communicable disease can be kept out of a community by certain precautions. Then the logical conclusion must be that what can be done by quarantine in certain cases can be done for other diseases if carried out to their legitimate conclusion. And, to go still farther, can we not, by attention to health, or sanitary laws made statutory, prevent, in a manner, the greater part of the diseases that the human system is heir to? These are undoubtedly legitimate and correct conclusions, but it is hard to convince the people that laws of this character do not encroach on their rights of citizenship and liberty. If you say to a community that the people of the adjoining town have the small-pox, and it is necessary, to prevent its spreading, that everyone should be prevented from going to or coming from that town, they would immediately act on your suggestion, and, if necessary, would surround the town with a cordon of shot-guns, to prevent communication. But if you should tell the same people that it is dangerous to have persons who have never studied anything that relates to the human system or its diseases—persons who are totally ignorant, and through their ignorance utterly regardless of the life or future welfare of those who come to them for advice about matters concerning life and death—if you tell them that such persons should not be allowed to prey upon the community, and attempt to enact laws

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to prevent this unscrupulous class from pretending to relieve disease, or, as it is termed, practicing medicine, you then strike at the liberties of the people, and are considered a tyrant that seeks to enchain the people that you may rob them and prevent honest men from making a living, as they term it.

I would beg leave to amend, by striking out the word "honest."

These are the conditions and the facts that must be considered in discussing State medicine. We find, in nearly every State, and in many cities and towns, some kind of quarantine law, and in thirty-two States we find health laws, most of them in the forms of State Boards of Health, with certain powers delegated to them, from almost unlimited to almost nothing But in nearly all we find that they shall have supervision over the health and life of the citizens of the State. What greater or more important duty could be delegated to any body? And in all the States the majority must be regularly educated physicians, and in most of them, of physicians alone. These laws, found in thirty-two States of this Union, have been enacted within the last twenty years; and, while we find, as I stated in the beginning, that the quarantine laws are generally enforced, the other provisions are not being so fully carried out, owing to the causes stated.

In our own State we have two distinct laws, that have been wofully mixed up in the minds of the people and lawmakers. One is the act creating the State Board of Health, and the other is known as the Practice Act. The first creates and prescribes the powers of the board, and the other prescribes who shall practice medicine in the State. When our board was first appointed they attempted to strictly enforce the Practice Act, and in this way they arrayed all the irregulars in the State against them; and with these irregulars were found the newspapers, as it looks preposterous to a newspaper man for anyone to object to advertising and the use of printers' ink, and as the irregulars are

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liberal patrons of the press, it was natural that they should object to having them driven from the State, thus depriving them of part of their revenue. Then we find, even among educated men—men who devote themselves to the relief of suffering, a class of men called by scientists pessimists, by ordinary men, grumblers, who were likely born when the sign was in Cancer and naturally grew up a little crabbed—this class of our own profession going to the assistance of the quacks, charlatans and irregulars, created a public sentiment that grew so strong that it was only by the hardest effort of a few that a repeal of all our health laws was not accomplished during the last session of the Legislature. Finding they could not kill it fairly, they thought to starve it to death, by cutting off the appropriation. Fortunately we have patriotic men in the profession who are willing to work for the good of the State without pay, and our Board of Health is still alive, and growing in public favor.

Now to the practical part of this paper. We all agree that sanitary laws are necessary and should be advocated, and that the people should be brought to recognize this fact. Now for the best means to attain the end desired. Our conclusion is that laws not in accord with public sentiment are a nullity, or void. Sanitary laws in time of epidemics are popular; during seasons of health, they are onerous, or are thought to be. During times of health selfish persons urge the opposition because of selfish interests. Then let us first advise our board to devote itself to the sanitary work of the board, let the Practice Act take a back seat for the present. Then let the profession throughout the State assist in educating the people to a belief in the necessity of such laws; teach them the usefulness of local boards of health; refer them to the ravages of contagious diseases in Canada and on the Continent, and warn them that we are liable to have the same trouble at any time; inculcate the idea that the best way to prevent hydrophobia is to kill the dog before he goes mad, or in other words, to prevent disease is the best way to cure

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it. Let the profession lecture in the churches and in the school-houses and other public places, on public health and sanitation; teach the people to prepare for epidemics and in this way prevent them. Make this question one to be talked of and thought about, and we will have no trouble in amending our health laws so as to make them thorough and efficient. I am satisfied that if the profession will go to work with the determination to do their part in educating the people to an appreciation of the necessity of stringent sanitary laws, and would consult with those spoken of as candidates for the Legislature, and see that they are pledged to assist in making these laws successful, we could easily attain the end sought for, and place Missouri in the front rank as to sanitary law.

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REPORT OF COMMITTEE ON MEDICAL EDUCATION.

By J. P. Thatcher, M. D., Chairman.

WHILE the subject under consideration is of vast importance, your committee begs leave to submit the following as a brief report. Much might be said, but lack of time forbids going into details:

The zeal, with reference to medical education, among the profession of this State, compared with our neighbors, is nothing to be proud of, and lacks that unity of action, as well as feeling, needful to insure complete success. We have not reached that state of perfection which should have been accomplished by an enterprising body, and our lack of advancement is due, in a great measure, to the inattention paid to the subject by this association. It does not devote that time to the subject which it demands, passing by the reports of this committee with a brief notice, for more important (?) business, and thereby creating in the minds of its members, at least while in session, a feeling averse to the question. While it is true there has been some advancement, on the part of a few individuals, it is almost imperceptible.

There is no doubt in the minds of some that we have too many medical colleges in this State, "with facilities unsurpassed," either expressed or implied, in their annual announcements scattered over the country. This is the greatest evil with which we have to contend. We look to these institutions to raise the standard, and how far have they gone? Only so far as to come within the pale of certain laws. Many, if not all, are founded with the intention of gain, in the way of free advertising, rather than for the eleva-

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tion of medical education. We have, from data* at our disposal ten institutions of all classes within the borders of this State, enough for the United States, and of all these only one makes any pretentions to a graded course. Judging the future by the past, can we hope, with the expectation of its being realized, for a more elevated standard than has been practiced heretofore?

There is another thought that might, with propriety, be mentioned in connection with the foregoing, and that is the preliminary education of the applicant. As he is to enter a field rich in material for investigation, in which the giant minds of the entire profession are laboring, the question of a superior education is apparent; for the more highly educated, the more readily will he be able to understand the teacher and the subject taught. This preliminary examination upon entering the course of study preparatory for college, is neglected by the profession in general, and it is here we have one source of evil. To correct this let each one examine the material presented. If unworthy or unqualified, reject it, and thereby correct as far as possible this side of the question. When the practitioner fails to notice this point, let the colleges come to the rescue, not having their preliminary examinations, mostly mythical, existing on paper, but examining in good faith and more than is prescribed by law, if they wish to become factors in the advancement of medical education, and not with those who say, "we are compelled to accept the material sent."

This last sounds to me like a schoolboy's excuse. If you have your standard above the legal mark, and intend to mantain it, if your applicants fail to reach the standard prescribed, then there is but one course left you at all honorable, and which you are in duty bound to respect. From limited observation we must say that these so-called preliminary examinations are a farce, practically a dead-letter, in some colleges, and the same may be said to great extent of all. If there was only a little more rivalry in the

* Illinois State Board of Health, 1883.

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way of a superior education and not so much jealousy, as to which among our colleges shall have the largest class, the plane of this department would be raised.

It is, and has been, the rule in this country to look upon the holder of a medical diploma as one fully qualified to practice medicine. This is not what it should be. While this is the custom the State has a right to say who shall practice medicine within her borders, as the diploma is simply a certificate as to the holder having fulfilled the requirements of the institution whose name it bears, and not an evidence as to his qualifications to practice medicine. The teachers of public schools, no matter what their qualifications, must hold certificates from the County Commissioner, and something of the same nature should be required of graduates of medical colleges.

Despite the amount that has been said and written on this question, the advancement has taken place only by degrees, and these steps correspond, with but few exceptions, to some legislative power. This being the case, and if, as we have said, the State has the right to regulate the practice of medicine in her boundaries, which fact has never been thoroughly tested, to our knowledge, then the only way out of this difficulty, that seems to us at all practicable, would be by legislation. If our State is dilatory in this matter, we have near neighbors' praises for their achievements who will see that the cause does not suffer

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APPENDIX.

CONSTITUTION AND BY-LAWS.

ARTICLE I.—TITLE.

This Association shall be called "THE MEDICAL ASSOCIATION OF MISSOURI."

ARTICLE II.—OBJECTS.

The objects of the Association are to constitute a representative body of the regular medical profession of the State of Missouri, which may advance the interest and encourage the unity and harmonious action of the entire profession throughout this State; to suppress empiricism as much as practicable; to restrict the privilege of practicing the profession of medicine to qualified graduates; to develop talent, stimulate medical inventions and discoveries, and to maintain our rights and immunities as medical men.

ARTICLE III.—MEMBERS.

The members of this Association shall consist of four classes, to wit: 1st, Associate Members; 2nd, Delegates; 3d, Honorary Members; 4th, Members by Invitation.

ARTICLE IV.—OFFICERS.

The officers of this Association shall be a President, five Vice-Presidents, two Recording Secretaries, a Corresponding Secretary and a Treasurer.

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ARTICLE V.—STANDING COMMITTEES.

The following standing committees, composed of three members, of whom the first named is chairman, shall be nominated at each annual meeting, to wit:

1. A Committee of Arrangements.
2. A Committee on Credentials.
3. A Committee on Scientific Communications.
4. A Committee on the Progress of Medicine.
5. A Committee on the Progress of Surgery.
6. A Committee on Medical Education.
7. A Committee on Medical Ethics.
8. A Committee on Publication.

ARTICLE VI.—AMENDMENTS.

No alteration or amendment shall be made in any of the articles of this Constitution, except at the annual meeting next subsequent to that at which such alteration or amendment may have been proposed, and then only by the concurrence of three-fourths of the members in attendance.

BY-LAWS.

ARTICLE I.—MEMBERS.

SECTION 1.—*Associate Members* shall be graduates of any medical college, who shall conform to the requirements of the American Medical Association, sign the Constitution and pay the fee.

SEC. 2.—*Delegates* from local societies in Missouri.

SEC. 3.—*Honorary Members* may be elected at any annual meeting by a unanimous vote of the Association, not to exceed six annually. Every member who may have been, or may hereafter be, elected the President of this Association, will, by virtue of that fact, become an honorary member. With this exception, only non-residents of the State, of pre-eminent reputation, shall be eligible for honorary membership.

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SEC. 4.—*Members by Invitation* shall consist of reputable practitioners who may be deemed worthy of the compliment, and elected by a vote of the Association.

SEC. 5.—Any physician, after having been admitted as a member of this Association, shall retain his membership by the payment of an annual fee of three dollars at each annual meeting as long as he is in good standing in his profession.

SEC. 6.—All classes of members shall be entitled to equal privileges in the discussions of the Association.

SEC. 7.—Honorary members who are non-residents of the State, and members by invitation, shall not be eligible to office, nor allowed to vote, nor be expected to contribute to the funds of the Association.

SEC. 8.—If a member of this Association die, it shall be the duty of the presiding officer of the nearest medical society in the district in which he resided, to write or have written, a suitable biographical sketch of said deceased member, and to transmit the same, before the next annual meeting, to the Committee on Publication.

SEC. 9.—The Recording Secretary shall keep a list of the living members of this Association, so that at each annual meeting, if, when the roll is called, it be ascertained that any member has died during the year, the President may appoint some suitable person to prepare a biographical sketch of said deceased member.

ARTICLE II.—ELECTIONS.

SECTION 1.—The election of officers of the Association shall occur annually, and shall be by ballot, a majority electing.

SEC. 2.—All officers shall be elected on the last day of the session, at such hour as the Association shall direct, and they shall be inducted into office immediately before the final adjournment.

SEC. 3.—The election of President shall be made in open session, by ballot or otherwise, as the Association shall at the time direct.

SEC. 4.—All the other officers shall be elected after nominations have been presented by the Committee on Nominations.

ARTICLE III.—DUTIES OF OFFICERS.

SECTION 1.—The *President* shall preside at the meetings, preserve order, and perform all other duties that custom and parliamentary usage may require, countersign orders on the Treasurer,

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and deliver an annual address to the Association before retiring from office.

SEC. 2.—The *Vice-Presidents*, when called upon, shall assist the President in the performance of his duties, and during the absence, or at the request of the President, one of them shall officiate in his place.

SEC. 3.—The *Recording Secretaries* shall keep a full and accurate record of the proceedings, shall serve as members on the Committee on Publication, and preserve the archives and unpublished transactions of the Association.

SEC. 4.—The *Corresponding Secretary* shall conduct all business communications of the Association and report the same at each annual meeting, and then deliver the same to the Recording Secretary; and shall perform such other duties pertaining to his office as the President of the Association may direct.

SEC. 5.—The *Treasurer* shall collect and have immediate charge and management of the funds and property of the Association, and hold them subject to its disposal. At each annual meeting he shall present a written report, setting forth the amount of moneys received and disbursed, and for what purposes. At the expiration of, or on vacating his office, he shall deliver to his successor all moneys and all property belonging to the Association for which he is responsible. He shall file a bond with the Recording Secretary, on or before assuming his duties, equal in amount to liabilities of his office, indorsed by two securities approved by the President.

ARTICLE IV.—MEETINGS.

SECTION 1.—The regular meetings of this Association shall be held annually at any place within the State of Missouri that may have been selected by the Association, and shall commence on the third Tuesday in May—changeable, however, at the option of the President and Recording Secretary, when such time conflicts with the meeting of the American Medical Association.

SEC. 2.—The regular meetings of the Association may remain in session three days, if a sufficiency of business seems to demand it.

ARTICLE V.—DUTIES OF STANDING COMMITTEES.

SECTION 1.—The *Committee on Arrangements* shall provide suitable accommodations for the annual meeting, and shall take all

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measures to secure the attendance of members, by publication or otherwise.

SEC. 2.—The *Committee on Credentials* shall examine and report upon the credentials of members.

SEC. 3.—The *Committee on Scientific Communications* shall have charge of all scientific communications made to the Association. It shall be their duty to receive from members the titles of such papers as may be proposed to the Association, and to take such other measures as may seem to them best adapted to secure interesting and original communications upon scientific subjects connected with medicine. Such communications must be read before the Association, in full or in abstract, before being presented to the Committee on Publication. They shall also arrange the order in which such communications shall be presented to the Association.

SEC. 4.—The *Committee on the Progress of Medicine* (duties not defined.)

SEC. 5.—The *Committee on the Progress of Surgery* (duties not defined.)

SEC. 6.—The *Committee on Medical Education* shall prepare an annual report on the general status of medical education in the State of Missouri, with such other matters as they may deem worthy of special consideration in reference to medical education and the reputable standing of the profession.

SEC. 7.—The *Committee on Medical Ethics* shall take cognizance of any matter relating to their department.

SEC. 8.—The *Committee on Publication*, of which the Recording and Corresponding Secretaries and the outgoing Recording Secretaries shall, *ex-officio*, constitute a part, shall examine all papers that may be referred to it by the Association, and shall present a report, during the meeting at which the said papers are read, stating what papers, in the opinion of the committee, should be published in the Association Transactions. The committee shall, furthermore, prepare for the press, publish and distribute such of the Proceedings and Memoirs of the Association as may be ordered to be published.

ARTICLE VI.—DISCIPLINE OF MEMBERS.

SECTION 1.—In case of a violation of the provisions of the Constitution, or the Code of Ethics adopted by the Association, and

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upon the fact being established to the satisfaction of two-thirds of the members in attendance at the meeting, the individual or individuals thus offending shall be expelled.

ARTICLE VII.—FUNDS AND APPROPRIATIONS.

SECTION 1.—The funds of the Association shall be raised by an annual assessment of three dollars on each member, and by individual voluntary contributions.

SEC. 2.—The funds thus raised may be appropriated for defraying the expenses of the annual meetings; for publishing the Proceedings, Memoirs and Transactions of the Association; for enabling the standing committees to fulfill their respective duties, conduct their correspondence, and procure the material for the completion of their stated annual reports; for the encouragement of scientific investigations by prizes and awards of merit; and for such other purposes as the Association may from time to time direct.

SEC. 3.—All members shall be entitled to a copy of the publications of the Association for one year.

ARTICLE VIII.—CODE OF ETHICS.

SECTION 1.—The Code of Ethics of the American Medical Association is hereby adopted by this Association, and shall have the full force and effect of any article of the Constitution.

At the Twenty-Seventh Annual meeting the following amendments, relative to membership, were adopted:

1. Honorary members shall consist of those who have served as President of the Association with such distinguished members of the profession, not resident of the State, who shall be elected by a three-fourths vote at a regular meeting of the Association.

2. All members of good standing of regular medical societies of this State, who shall be regularly accredited by the proper officers of said societies.

3. The annual dues to be paid by all members in attendance (other than honorary) shall be three dollars, and each member shall be entitled to a copy of the Transactions.

4. Any physician in the State not a member who shall remit one dollar to the treasurer on or before the annual meeting shall be entitled to a copy of the Transactions.

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ARTICLE IX.—ORDER OF BUSINESS.

The following Order of Business is adopted as a By-Law of this Association, which shall at all times be subject to the vote of a majority of the members in attendance at the meeting, and, except when temporarily suspended, shall be as follows:

1. The organization of the meeting.
2. Reading the minutes of the preceding meeting.
3. Report of the Committee on Arrangements.
4. Report of the Committee on Credentials of members who have registered their names and paid their dues.
5. The calling of the roll.
6. The election of officers for the current year.
7. The reception of members not present at the opening of the meeting, and the reading of notes from absentees.
8. Reception of members by invitation.
9. Reports of standing committees.
10. The reading and discussion of scientific communications as arranged by committees.
11. The reading of biographical sketches of deceased members.
12. Resolutions introducing new business and instructions to the standing committees.
13. Unfinished and miscellaneous business.
14. Adjournment.

ARTICLE X.—AMENDMENTS.

SECTION 1.—No alteration or amendment in the By-Laws shall be made except at a regular meeting, and by a two-thirds vote of the members present.

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CODE OF MEDICAL ETHICS.—OF THE DUTIES OF PHYSICIANS TO THEIR PATIENTS, AND OF THE OBLIGATIONS OF PATIENTS TO THEIR PHYSICIANS.

ARTICLE I.

DUTIES OF PHYSICIANS TO THEIR PATIENTS.

SECTION 1. A physician should not only be ever ready to obey the calls of the sick, but his mind ought also to be imbued with the greatness of his mission and the responsibility he habitually incurs in its discharge. These obligations are the more deep and enduring, because there is no tribunal other than his own conscience to adjudge penalties for carelessness and neglect. Physicians should, therefore, minister to the sick with due impression of the importance of their office; reflecting that the ease, the health, and the lives of those committed to their charge, depend upon their skill, attention, and fidelity. They should study, also, in their deportment, so to unite *tenderness* and *firmness* and *condescension*, with *authority*, as to inspire the minds of their patients with gratitude, respect and confidence.

SEC. 2. Every case committed to the charge of a physician should be treated with attention, steadiness and humanity. Reasonable indulgence should be granted to the mental imbecility and caprices of the sick. Secrecy and delicacy, when required by peculiar circumstances, should be strictly observed, and the familiar and confidential intercourse to which physicians are admitted in their professional visits, should be used with discretion, and with the most scrupulous regard to fidelity and honor. The obligation of secrecy extend beyond the period of professional services;—none of the privacies of personal and domestic life, no infirmity of disposition or flaw of character observed during professional attendance should ever be divulged by the physician except when he is imperatively required to do so. The force and necessity of this obligation is indeed so great that professional men have, under certain circumstances, been protected in their observance of secrecy by courts of justice.

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SEC. 3. Frequent visits to the sick are, in general, requisite, since they enable the physician to arrive at the more perfect knowledge of the disease—to meet promptly every change which may occur, and also tend to preserve the confidence of the patient. But unnecessary visits are to be avoided, as they give useless anxiety to the patient, tend to diminish the authority of the physician, and render him liable to be suspected of interested motives.

SEC. 4. A physician should not be forward to make gloomy prognostications, because they savor of empiricism, by magnifying the importance of his services in the treatment or cure of the disease. But he should not fail, on proper occasions, to give the friends of the patient timely notice of danger when it really occurs; and even to the patient himself, if absolutely necessary. This office, however, is so peculiarly alarming when executed by him, that it ought to be declined whenever it can be assigned to any other person of sufficient judgment and delicacy; for the physician should be the minister of hope and comfort to the sick, that by such cordials to the drooping spirit he may smooth the bed of death, revive expiring life, and counteract the depressing influence of those maladies which often disturb the tranquillity of the most resigned in their last moments. The life of a sick person can be shortened not only by the acts, but also by the words or manner of a physician. It is, therefore, a sacred duty to guard himself carefully in this respect, and to avoid all things which have a tendency to discourage the patient and to depress his spirits.

SEC. 5. A physician ought not to abandon a patient because the case is deemed incurable; for his attendance may continue to be highly useful to the patient and comforting to the relatives around him, even in the last period of a fatal malady, by alleviating pain and other symptoms, and by soothing mental anguish. To decline attendance under such circumstances, would be sacrificing to fanciful delicacy and mistaken liberality that moral duty which is independent of, and far superior to, all pecuniary consideration.

SEC 6. Consultations should be promoted in difficult or protracted cases, as they give rise to confidence, energy and more enlarged views in practice.

SEC. 7. The opportunity which a physician not infrequently enjoys, of promoting and strengthening the good resolutions of his patients, suffering under the consequences of vicious conduct, ought

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never to be neglected. His councils, or even remonstrances, will give satisfaction, not offence, if they be proffered with politeness, and evince a genuine love of virtue, accompanied by a sincere interest in the welfare of the person to whom they were addressed.

ARTICLE II.

OBLIGATIONS OF PATIENTS TO THEIR PHYSICIANS.

SECTION 1. The members of the medical profession, upon whom is enjoined the performance of so many important and arduous duties toward the community, and who are required to make so many sacrifices of comfort, ease, and health, for the welfare of those who avail themselves of their services, certainly have a right to expect and require, that their patients shall entertain a just sense of the duties which they owe to their medical attendants.

SEC. 2. The first duty of a patient is to select as his medical adviser, one who has received a regular professional education. In no trade or occupation do mankind rely on the skill of an untaught artist; and in medicine, the most difficult and intricate of the sciences, the world ought not to suppose that knowledge is intuitive.

SEC. 3. Patients should prefer a physician whose habits of life are regular, and who is not devoted to company, pleasure, or to any pursuit incompatible with his professional obligations. A patient should also confide the care of himself and family, as much as possible, to one physician; for a medical man who has become acquainted with the peculiarities of constitution, habits and predisposition of those he attends, is more likely to be successful in treatment than one who does not possess that knowledge.

A patient who has thus selected his physician should always apply for advice in what may appear to him trivial cases, for the most fatal results often supervene on the slightest accidents. It is of still more importance that he should apply for assistance in the forming stage of violent diseases. It is to a neglect of this precept that medicine owes much of the uncertainty and imperfection with which it has been reproached.

SEC. 4. Patients should faithfully and unreservedly communicate to their physicians the supposed cause of their disease. This is the more important, as many diseases of a mental origin stimulate those depending on external causes, and yet are only to

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be cured by ministering to the mind diseased. A patient should never be afraid of thus making his physician his friend and adviser; he should always bear in mind that a medical man is under the strongest obligations of secrecy. Even the female sex should never allow feelings of shame or delicacy to prevent their disclosing the seat, symptoms and causes of complaints peculiar to them. However commendable a modest reserve may be in the common occurrences of life, its strict observance in medicine is often attended with the most serious consequences, and a patient may sink under a painful and loathsome disease which might have been readily prevented had timely intimation been given to the physician.

SEC. 5. A patient should never weary his physician with a tedious detail of events or matters not appertaining to his disease. Even as relates to his actual symptoms, he will convey much more real information by giving clear answers to interrogatories, than by the most minute account of his own framing. Neither should he obtrude upon his physician the details of business nor the history of his family concerns.

SEC. 6. The obedience of a patient to the prescriptions of his physician should be prompt and implicit. He should never permit his own crude opinions as to their fitness to influence his attention to them. A failure in one particular may render an otherwise judicious treatment dangerous and even fatal. This remark is equally applicable to diet, drink, and exercise. As patients become convalescent, they are very apt to suppose that the rules prescribed for them may be disregarded, and the consequence, but too often, is a relapse. Patients should never allow themselves to be persuaded to take any medicine whatever, that may be recommended to them by the self-constituted doctors and doctresses, who are frequently met with, and who pretend to possess infallible remedies for the cure of every disease. However simple their prescriptions may appear to be, it often happens that they are productive of much mischief, and in all cases they are injurious, by contravening the plan of treatment adopted by the physician.

SEC. 7. A patient should, if possible, avoid even the *friendly visits of a physician* who is not attending him—and when he does receive them, he should never converse on the subject of his disease, as an observation may be made, without any intention of

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interference, which may destroy his confidence in the course he is pursuing, and induce him to neglect the directions prescribed to him. A patient should never send for a consulting physician without the express consent of his own medical attendant. It is of great importance that physicians should act in concert; for, although their modes of treatment may be attended with equal success, when employed singly, yet conjointly, they are very likely to be productive of disastrous results.

SEC. 8. When a patient wishes to dismiss his physician, justice and common courtesy require that he should declare his reasons for so doing.

SEC. 9. Patients should always, when practicable, send for their physician in the morning, before his usual hour for going out; for by being early aware of the visits he has to pay during the day, the physician is liable to apportion his time in such a manner as to prevent an interference of engagements. Patients should also avoid calling on their medical adviser unnecessarily during the hours devoted to meals or sleep. They should always be in readiness to receive the visits of their physician, as the detention of a few minutes is often of serious inconvenience.

SEC. 10. A patient should, after his recovery, entertain a just and enduring sense of the value of the services rendered him by his physician; for these are of such a character, that no mere pecuniary acknowledgment can repay or cancel them.

OF THE DUTIES OF PHYSICIANS TO EACH OTHER, AND TO THE PROFESSION AT LARGE.

ARTICLE I.

DUTIES FOR THE SUPPORT OF PROFESSIONAL CHARACTER.

SECTION 1. Every individual, on entering the profession, as he becomes thereby entitled to all its privileges and immunities, incurs an obligation to exert his best abilities to maintain its dignity and honor, to exalt its standing, and to extend the bounds of its usefulness. He should, therefore, observe strictly such laws as are insti-

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tuted for the government of its members—should avoid all contumelious and sarcastic remarks relative to the faculty as a body; and while, by unwearied diligence, he resorts to every honorable means of enriching the science, he should entertain a due respect for his seniors, who have, by their labors, brought it to the elevated condition in which he finds it.

SEC. 2. There is no profession from the members of which greater purity of character and a higher standard of moral excellence are required, than the medical; and to attain such an eminence is the duty every physician owes alike to his profession and to his patients. It is due to the latter, as without it he cannot command their respect and confidence; and to both, because no scientific attainments can compensate for the want of correct moral principles. It is also incumbent upon the faculty to be temperate in all things, for the practice of physic requires the unremitting exercise of a clear and vigorous understanding, and, on emergencies, for which no professional man should be unprepared, a steady hand, an acute eye, and an unclouded head may be essential to the well-being, and even to the life, of a fellow-creature.

SEC. 3. It is derogatory to the dignity of the profession to resort to public advertisement, or private cards, or handbills, inviting the attention of individuals affected with particular diseases—publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any other similar acts. These are ordinary practices of empirics, and are highly reprehensible in a regular physician.

SEC. 4. Equally derogatory to professional character is it for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret *nostrum*, whether it be the composition or exclusive property of himself or others. For, if such nostrum has real efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality; and if mystery alone give it value and importance, such craft implies either disgraceful ignorance or fradulent avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them.

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ARTICLE II.

PROFESSIONAL SERVICES OF PHYSICIANS TO ONE ANOTHER.

SECTION 1. All practitioners of medicine, their wives, and their children, while under paternal care, are entitled to the gratuitous services of any one or more of the faculty residing near them, whose assistance may be desired. A physician afflicted with disease is usually an incompetent judge of his own case; and the natural anxiety and solicitude which he experiences at the sickness of a wife, or child, or anyone, who, by the ties of consanguinity, is rendered peculiarly dear to him, tend to obscure his judgment, and produce timidity and irresolution in his practice. Under such circumstances, medical men are peculiarly dependent upon each other, and kind offices and professional aid should always be cheerfully and gratuitously afforded. Visits ought not, however, to be obtruded officiously; as such unasked civility may give rise to embarrassment, or interfere with that choice on which confidence depends. But, if a distant member of the faculty, whose circumstances are affluent, request attendance, and an honorarium be offered, it should not be declined; for no pecuniary obligation ought to be imposed which the party receiving it would wish not to incur.

ARTICLE. III.

OF THE DUTIES OF PHYSICIANS AS RESPECTS VICARIOUS OFFICES.

SECTION 1. The affairs of life, the pursuit of health, and the various accidents and contingencies to which a medical man is peculiarly exposed, sometimes require him temporarily to withdraw from his duties to his patients, and to request some of his professional brethren to officiate for him. Compliance with this request is an act of courtesy which should always be performed with the utmost consideration for the interest and character of the family physician, and when exercised for a short period, all the pecuniary obligations for such service would be awarded him. But if a member of the profession neglect his business in quest of pleasure and amusement, he cannot be considered as entitled to the advantages of the frequent and long-continued exercise of this fraternal courtesy, without awarding to the physician who officiates, the fees arising from the discharge of his professional duties.

In obstetrical and important surgical cases, which give rise to

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unusual fatigue, anxiety, and responsibility, it is just that the fees accruing therefrom should be awarded the physician who officiates.

ARTICLE IV.

OF THE DUTIES OF PHYSICIANS IN REGARD TO CONSULTATIONS.

SECTION 1. A regular medical education furnishes the only presumptive evidence of professional abilities and requirements, and ought to be the only acknowledged right of any individual to the exercises and honors of his profession. Nevertheless, as in consultation the good of the patient is the sole object in view, and this is often dependent on personal confidence, no intelligent regular practitioner, who has a license to practice from some medical board of known and acknowledged respectability, recognized by this Association, and who is in good moral and professional standing in the place in which he resides, should be fastidiously excluded from fellowship, or his aid refused in consultation, when it is requested by the patient. But no one can be considered a regular practitioner or a fit associate in consultation, whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry.

SEC. 2. In consultations, no rivalship or jealousy should be indulged in; candor, probity, and all due respect should be exercised toward the physician having charge of the case.

SEC. 3. In consultations, the attending physician should be the first to propose the necessary questions to the sick; after which the consulting physician should have the opportunity to make such further inquiries of the patient as may be necessary to satisfy him of the true character of the case. Both physicians should then retire to a private place for deliberation; and the one first in attendance should communicate the directions agreed upon to the patient or his friends, as well as any opinions which it may be thought proper to express. But no statement or discussion of it should take place before the patient or his friends, except in the presence of all the faculty attending, and by their common consent; and no *opinions* or *prognostications* should be delivered which are not the result of previous deliberation and concurrence.

SEC. 4. In consultations, the physician in attendance should

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deliver his opinion first; and where there are several consulting, they should deliver their opinions in the order in which they have been called in. No decision, however, should restrain the attending physician from making such variations in the mode of treatment as any subsequent unexpected change in the character of the case may demand. But such variation, and the reason for it, ought to be carefully detailed at the next meeting in consultation. The same privilege belongs also to the consulting physician if he is sent for in an emergency, when the regular attendant is out of the way, and similar explanations must be made by him at the next consultation.

SEC. 5. The utmost punctuality should be observed in the visits of physicians, when they are to hold consultations together, and this is generally practicable, for society has been considerate enough to allow the plea of a professional engagement to take precedure of all others, and to be an ample reason for the relinquishment of any present occupation. But, as professional engagements may sometimes interfere, and delay one of the parties, the physician who first arrives should wait for his associate a reasonable period. after which the consultation should be considered as postponed to a new appointment. If it be the attending physician who is present, he will, of course, see the patient and prescribe, but if it be the consulting one, he should retire, except in case of emergency, or when he has been called from a considerable distance, in which latter case he may examine the patient and give his opinion in *writing* and *under seal*, to be delivered to his associates.

SEC. 6. In consultations, theoretical discussions should be avoided, as occasioning perplexity and loss of time. For there must be much diversity of opinion concerning speculative points, with perfect agreement in those modes of practice which are founded, not on hypothesis, but on experience and observation.

SEC. 7. All discussions in consultation should be held as secret and confidential. Neither by words nor manner should any parties to a consultation assert or intimate that any part of the treatment pursued did not receive his assent. The responsibility must be equally divided between the medical attendants—they must equally share their credit of success as well as the blame of failure.

SEC. 8. Should an irreconcilable diversity of opinion occur when several physicians are called upon to consult together, the opinion of the majority should be taken as decisive; but if the numbers be

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equal on each side, then the decision should rest with the attending physician. It may, moreover, sometimes happen that two physicians cannot agree in their views of the nature of the case and the treatment to be pursued. This is a circumstance much to be deplored, and should always be avoided, if possible, by mutual concessions, as far as they can be justified by a conscientious regard for the dictates of judgment. But in the event of its occurrence, a third physician should, if practicable, be called to act as umpire; if circumstances prevent the adoption of this course, it must be left to the patient to select the physician in which he is most willing to confide. But as every physician relies upon the rectitude of his judgment, he should, when left in the minority, politely and consistently retire from any further deliberation in the consultation or participation in the management of the case.

SEC. 9. As circumstances sometimes occur to render a *special consultation* desirable, when the continued attendance of two physicians might be objectionable to the patient, the member of the faculty whose assistance is required in such cases should sedulously guard against all future unsolicited attendance. As such consultations require an extraordinary portion both of time and attention, at least a double *honorarium* may be reasonably expected.

SEC. 10. A physician who is called upon to consult should observe the most honorable and scrupulous regard for the character and standing of the practitioner in attendance; the practice of the latter, if necessary, should be justified as far as it can be, consistently with a conscientious regard for truth, and no hint or insinuation should be thrown out which could impair the confidence reposed in him, or affect his reputation. The consulting physician should also carefully refrain from any of those extraordinary attentions or assiduities which are too often practiced by the dishonest for the base purpose of gaining applause, or ingratiating themselves into the favor of families and individuals.

ARTICLE V.

DUTIES OF PHYSICIANS IN CASES OF INTERFERENCE.

SECTION 1. Medicine is a liberal profession, and those admitted into its ranks should found their expectations of practice upon the extent of their qualifications, not on intrigue or artifice.

SEC. 2. A physician, in his intercourse with a patient under the

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care of another practitioner, should observe the strictest caution and reserve. No meddling inquiries should be made—disingenuous hints given relative to the nature and treatment of his disorder; nor any course of conduct pursued that directly or indirectly tends to diminish the trust reposed in the physician employed.

SEC. 3. The same circumspection and reserve should be observed when, from motives of business and friendship, a physician is prompted to visit an individual who is under the direction of another practitioner. Indeed, such visits should be avoided, except under peculiar circumstances; and when they are made, no particular inquiries should be instituted relative to the nature of the disease or the remedies employed, but the topics of conversation should be as foreign to the case as circumstances will admit.

SEC. 4. A physician ought not to take charge of, or prescribe for, a patient who has recently been under the care of another member of the faculty in the illness, except in case of sudden emergency, or in consultation with the physician previously in attendance, or when the latter has relinquished the case or has been regularly notified that his services are no longer desired. Under such circumstances no unjust or illiberal insinuations should be thrown out in regard to the conduct or practice previously pursued, which should be justified as far as candor and regard for truth and probity will permit; for it often happens that patients become dissatisfied when they do not experience immediate relief, and as many diseases are naturally protracted, the want of success, in the first stages of treatment, affords no evidence of a lack of professional knowledge or skill.

SEC. 5. When a physician is called to an urgent case, because the family attendant is not at hand, he ought, unless his assistance in consultation is desired, to resign the care of the patient to the latter immediately on his arrival.

SEC. 6. It often happens, in case of sudden illness, or of recent accidents and injuries, owing to the alarm and anxiety of friends, that a number of physicians are simultaneously sent for. Under these circumstances courtesy should assign the patient to the first who arrives, who should select from those present any additional assistance that he may deem necessary. In all such cases, however, the practitioner who officiates should request the family physician, if there be one, to be called, and, unless his further attend-

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ance be requested, should resign the case to the latter on his arrival.

SEC. 7. When a physician is called to the patient of another practitioner, in consequence of the sickness or absence of the latter, he ought, on the return or recovery of the regular attendant, and with the consent of patient, to surrender the case.

[The expression "patient of another practitioner," is understood to mean a patient who may have been under the charge of another practitioner at the time of the attack of the sickness, or departure from home of the latter, or who may have been called for his attendance during his absence or sickness, or in any other manner given it to be understood that he regarded the said physician as his regular medical attendant.]

SEC. 8. A physician, when visiting a sick person in the country, may be desired to see a neigboring patient who is under the regular direction of another physician, in consequence of some sudden change or aggravation of symptoms. The conduct to be pursued on such an occasion is to give advice adapted to present circumstances; to interfere no further than is absolutely necessary with the general plan of treatment, to assume no future direction unless it be expressly desired; and, in the last case, to request an immediate consultation with the practitioner previously employed.

SEC. 9. A wealthy physician should not give advice *gratis*, to the affluent, because his doing so is an injury to his professional brethren. The office of a physician can never be supported as an exclusively beneficent one, and it is defrauding, in some degree, the common funds for its support when fees are dispensed with which might justly be claimed.

SEC. 10. When a physician who has been engaged to attend a case of midwifery is absent, and another is sent for, if delivery is accomplished during the attendance of the latter, he is entitled to the fee, but should resign the patient to the practitioner first engaged.

ARTICLE VI.

OF DIFFERENCE BETWEEN PHYSICIANS.

SECTION 1. Diversity of opinion and opposition of interest may, in the medical as in other professions, sometimes occasion contro-

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versy and even contention. Whenever such cases unfortunately occur, and cannot be immediately terminated, they should be referred to the arbitration of a sufficient number of physicians, or a *court-medical.*

SEC. 2. As a peculiar reserve must be maintained by physicians towards the public in regard to professional matters, and as there exists numerous points in medical ethics and etiquette through which the feelings of medical men may be painfully assailed in their intercourse with each other, and which cannot be understood or appreciated by general society, neither the subject-matter of such differences nor the adjudication of the arbitrators should be made public, as publicity in a case of this nature may be personally injurious to the individuals concerned, and can hardly fail to bring discredit to the faculty.

OF THE DUTIES OF THE PROFESSION TO THE PUBLIC, AND OF THE OBLIGATIONS OF THE PUBLIC TO THE PROFESSION.

ARTICLE I.

DUTIES OF THE PROFESSION TO THE PUBLIC.

SECTION 1. As good citizens, it is the duty of physicians to be ever vigilant for the welfare of the community, and to bear their part in sustaining its institutions and burdens. They should also be ever ready to give counsel to the public in relation to matters especially appertaining to their profession, and on subjects of medical police, public hygiene, and legal medicine. It is their province to enlighten the public in regard to quarantine regulations—the location, arrangement and dietaries of hospitals, asylums, schools, prisons, and similar institutions—in relation to the medical police of towns, as drainage, ventilation, etc., and in regard to measures for the prevention of epidemic and contagious diseases; and when pestilence prevails, it is their duty to face the danger, and to continue

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their labors for the alleviation of the suffering, even at the jeopardy of their own lives.

SEC. 2. Medical men should also be always ready, when called on by the legally constituted authorities; to enlighten coroner's inquests and courts of justice on subjects strictly medical—such as involve questions relating to sanity, legitimacy, murder by poisons or other violent means, and in regard to the various other subjects embraced in the science of Medical Jurisprudence. But in these cases, and especially where they are required to make a *post-mortem* examination, it is just, in consequence of time, labor and skill required, and the responsibility and risk they incur, that the public should award them a proper *honorarium*.

SEC. 3. There is no profession by the members of which eleemosynary services are more liberally dispensed than the medical, but justice requires that some limit should be placed to the performance of such good offices. Poverty, professional brotherhood, and certain of the public duties referred to in the first section of this article, should always be recognized as presenting valid claims for gratuitous services; but neither institutions endowed by the public or by rich individuals, societies for mutual benefit, for the insurance of lives, or for analogous purposes, nor any profession or occupation, can be admitted to possess such privilege. Nor can it be justly expected of physicians to furnish certificates of inability to serve on juries, to perform militia duty, or to testify to the state of health of persons wishing to insure their lives, obtain pensions, or the like, without pecuniary acknowledgment. But to individuals in indigent circumstances such professional services should always be cheerfully and freely accorded.

SEC. 4. It is the duty of physicians, who are frequent witnesses of the enormities committed by quackery, and the injury to health and even the destruction of life caused by the use of quack medicines, to enlighten the public on these subjects, to expose the injuries sustained by the unwary from the devices and pretensions of artful empirics and impostors. Physicians ought to use all the influences which they may possess as professors in colleges of pharmacy, and, by exercising their opinion in regard to the shops to which their prescriptions shall be sent, to discourage druggists and apothecaries from vending quack or secret medicines, or from being in any way engaged in their manufacture and sale.

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ARTICLE II.

OBLIGATIONS OF THE PUBLIC TO PHYSICIANS.

SECTION 1. The benefits accruing to the public, directly and indirectly, from the active and unwearied beneficence of the profession are so numerous and important that physicians are justly entitled to the utmost consideration and respect from the community. The public ought likewise to entertain a just appreciation of medical qualifications; to make a proper discrimination between true science and the assumptions of ignorance and empiricism; to afford every encouragement and facility for the acquisition of medical education; and no longer to allow the statute books to exhibit the anomaly of exacting knowledge from physicians under liability of heavy penalties, and of making them obnoxious to punishment for resorting to the only means of obtaining it.

EXPLANATORY RESOLUTIONS.

The following resolutions were adopted at the New Orleans meeting of the American Medical Association, April 30, 1885, and ordered appended to all further publications of the Code:

WHEREAS, Persistent misrepresentations have been, and are still being made, concerning certain provisions of the Code of Ethics of this Association, by which many in the community, and some even in the ranks of the profession, are led to believe those provisions exclude persons from professional recognition simply because of differences of opinion of doctrines; therefore, be it

Resolved, That Section 1, Article IV., in the National Code of Medical Ethics is not interpreted as excluding from professional fellowship, on the ground of differences in doctrine or belief, those who, in other respects, are entitled to be members of the regular medical profession. Neither is there any other article or clause of the said Code of Ethics that interferes with the exercise of the most perfect liberty of individual opinion and practice.

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Resolved, That it constitutes a voluntary disconnection or withdrawal from the medical profession proper to assume a name indicating to the public a sectarian or exclusive system of practice, or to belong to an association or party antagonistic to the general medical profession.

Resolved, That there is no provision in the National Code of Medical Ethics in anywise inconsistent with the broadest dictates of humanity, and that the article of the Code which relates to consultations cannot be correctly interpreted as indicating, under any circumstances, the rendering of professional services whenever there is a pressing or immediate need of them. On the contrary, to promptly meet the emergencies occasioned by disease or accident, and to give a helping hand to the distressed without unnecessary delay, is a duty fully enjoined on every member of the profession, both by the letter and the spirit of the entire Code. But no such emergencies or circumstances can make it necessary or proper to enter into formal professional consultations with those who have voluntarily disconnected themselves from the regular medical profession in the manner indicated by the preceding resolution.

This report was signed by

N. S. Davis, of Chicago.
A. Y. P. Garnett, of Washington.
H. F. Campbell, of Augusta.
Austin Flint, Sr., of New York.
J. B. Murdoch, of Pittsburg.

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LIST OF OFFICERS

AND PLACES OF MEETING FROM THE TIME OF THE ORGANIZATION OF THE ASSOCIATION TO THE PRESENT.

[Every member who may have been, or who may hereafter be elected PRESIDENT of this Association, will, by virtue of that fact, become an HONORARY MEMBER.—*Extract from By-Laws.*]

[Officers marked with an asterisk (*) are deceased.]

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1856.—ST. JOSEPH.

1857.—ST. JOSEPH.

1858.—ST. LOUIS.

[The gap between the last and the following dates occurred during the war.]

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L. I. MATTHEWS, M. D., Carthage. A. B. SLOAN, M. D., Kansas City.
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Recording Secretaries:

A. J. STEELE, M. D., St. Louis. F. J. LUTZ, M. D., St. Louis.

Corresponding Secretary: H. H. MUDD, M. D., St. Louis.

Treasurer: C. A. THOMPSON, M. D., Jefferson City.

1881.—MEXICO.

President: WILLIS P. KING, Sedalia.

Vice-Presidents:

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Recording Secretaries:

C. A. TODD, M. D., St. Louis. J. H. DUNCAN, M. D., Columbia.

Corresponding Secretary: WM. DICKINSON, M. D., St. Louis.

Treasurer: C. A THOMPSON, M. D., Jefferson City.

1882.—HANNIBAL.

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Vice-Presidents:

PINCKNEY FRENCH, M. D., Mexico. R. F. BROOKS, M. D., Carthage.
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F. J. LUTZ, M. D., St. Louis.

Recording Secretaries:

C. A. TODD, M. D., St. Louis. J. H. DUNCAN, M. D., Columbia.

Corresponding Secretary: WM. DICKINSON, M. D., St. Louis.

Treasurer: C. A. THOMPSON, M. D., Jefferson City.

1883.—JEFFERSON CITY.

President: E. H. GREGORY, M. D., St. Louis.

Vice-Presidents:

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J. D. GRIFFITH, M. D., Kansas City. T. J. NORRIS, M. D., Macon.
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Recording Secretaries:

A. H. OHMANN-DUMESNIL, M. D., St. Louis. D. V. WALE, M D., Jasper.

Corresponding Secretary: N. F. ESSIG, M. D., Plattsburg.

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Vice-Presidents:

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B. G. DYSART, M. D., Paris. H. M. LANE, M. D., Jasper County.
S. C. GRISWOLD, M. D., New Haven.

Recording Secretaries:

J. H. THOMPSON, M. D., Kansas City. N. M. BASKET, M. D., Moberly.

Corresponding Secretary: F. J. LUTZ, M. D., St. Louis.

Treasurer: C. A. THOMPSON, M. D., Jefferson City.

1885.—ST. JOSEPH.

President: G. C. CATLETT, M. D., St. Joseph.

Vice-Presidents:

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J. W. JACKSON, M. D., Kansas City. D. H. SHIELDS, M. D., Hannibal.
G. M. DEWEY, M. D., Keytesville.

Recording Secretaries:

J. H. THOMPSON, M. D., Kansas City. J. C. MULHALL, M. D., St. Louis.

Corresponding Secretary: R. F. BROOKS, M. D., Carthage.

Treasurer: C. A. THOMPSON, M. D., Jefferson City.

1886.—ST. LOUIS.

President: J. W. JACKSON, M. D., Kansas City.

Vice-Presidents:

WOODSON MOSS, M. D., Columbia. C. L. LAMB, M. D., Hannibal.
W. E. FISCHEL, M. D., St. Louis. TINSLEY BROWN, M. D., Hamilton.
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Recording Secretaries:

J. C. MULHALL, M. D., St. Louis. E. CAVE, M. D., Mexico.

Corresponding Secretary: R. F. BROOKS, M. D., Carthage.

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